# **Table of Contents**

I Education and Degrees	2
II Employment	2
III Honors and Awards	3
IV Research Interests	5
V Grants	6
V(a) Research grants	6
V(b) Conference grants	7
V Ph.D. Theses Directed	7
VII Postdoctoral Fellows	9
VIII Publications	10
VIII(a) Books. Research monographs	10
VIII(b) Books edited	11
VIII(c) Invited review papers	12
VIII(d) Refereed journal articles	12
VIII(e) Refereed proceedings papers	30
IX Professional Activities	35
IX(a) Editorships	35
IX(b) Offices and functions held	36
IX(c) Service to National Science Foundation and CBMS-NSF-SIAM	37
IX(d) International scientific program committees (IPC)	37
IX(e) Organizer of special sessions/minisymposia/conferences	41
IX(f) Service to UVa (major committees; samples since 2000)	45
X Invited Presentations (1985–present)	45
X(a) Plenary speaker (keynote lecturer) at conferences	
X(b) Invited conference speaker	
X(c) Colloquium talks	62

#### I EDUCATION AND DEGREES

M.S. in Mathematics, University of Warsaw, Warsaw (Poland), 1972 Ph.D. in Mathematics, University of Warsaw, Warsaw (Poland), 1975

#### II EMPLOYMENT

Polish Academy of Sciences, Warsaw, Poland, Control Theory Institute, Assistant Professor, 1975–1980

University of California, Los Angeles, CA, Postdoctoral Fellow 1977–1980

University of Florida, Gainesville, FL, Mathematics Department, Assistant Professor, 1980–1981; Associate Professor, 1981–1984 (tenured); Professor, 1984–1987.

University of Virginia, Charlottesville, VA, Department of Applied Mathematics, Professor (tenured), 1987–1998; Department of Mathematics, Professor (tenured) 1998-2011;

Commonwealth Professor of Mathematics, 2011

University of Memphis, Memphis, TN, Department of Mathematical Sciences, Chair

Distinguished University Professor, September 2013 -

Visiting Appointments and Long-Stay Visits

1976 January-March, Department of Mathematics, Liege University, Belgium, Visiting Assistant Professor

1984, 1991 Summer, Scuola Normale Superiore, Pisa, Italy, CNR Fellow and Visiting Professor

1986, 1991 August, International Institute for Applied Systems Analysis (IIASA), Laxenburg, Austria, Visiting Professor

1984, 1990, 1991, 1992 July, Department of Mathematics, University of Bologna, Bologna, Italy, Visiting Professor

1992 October–December (sabbatical leave), Department of Mathematics, University of Trento, Italy, Visiting Professor

1992 November (sabbatical leave), NSF IMA Institute for Mathematics and its Applications, University of Minnesota, Minneapolis, IMA Fellow

1994 June–July, Instituto di Calcolo Scientifico (IAC) "Al Picone" Rome, Italy, CNR Fellow

1995 March, NSF IMA Institute of Mathematics and its Applications, University of Minnesota, Minneapolis, IMA Fellow

1997, 1998, Summer, Scuola Normale Superiore, Pisa, Italy, Visiting Professor

2001 June–July NSF IMA Institute of Mathematics and its Applications, University of Minnesota, Minneapolis, IMA Fellow

2002 Spring Semester, Scuola Normale Superiore, Pisa, Italy, Visiting Professor

2003 January, Mittag Leffler Institute, Stokholm (Drujholm), Sweden

2005 May, Universite of Nice and INRIA -Sophie Antipolis. France

2007 October, University of California, Los Angeles.

2010 Summer, Department of Mathematics, University of Warsaw, Poland

2011 October, University of Graz, Austria.

2011, July, Polish Academy of Sciences, Systems Research Institute, Warsaw.

2012, August, University of Rio de Janeiro and University of Maringa, Brazil.

2013, May, Polish Academy of Sciences, Systems Research Institute, Warsaw.

2016-Spring, IMA (Institute of Mathematics and Applications), University of Minnesota.

2021-Spring. MSRI University of California, Berkeley.

#### III HONORS AND AWARDS

- Awarded William R. Sparks Eminent Faculty Award -2020,
- Awarded Eisenbud Research Professor at MSRI -Berkeley [Mathematical Sciences Research Institute] at the University of Ca, Berkeley. Spring- 2021.
- Awarded by the AACC-IFAC [American Automatic Control Council] the **2019 Richard E. Bellman Control**Heritage Award with the citation for contribution to boundary control theory of distributed parameter systems
- Awarded SIAM Fellow -2019 with the citation For fundamental contributions to control theory of partial differential equations and their dissemination through numerous invited talks, administrative positions in professional societies, and the mentoring of many PhD students and postdoctoral associates.
- Series of Lectures at the Institute of Mathematics, Technical University of Warsaw, Poland, June 2019.
- Dr Karen Ames Memorial Lecture- University of Alabama, Huntsville, April 19, 2019.
- Plenary Speaker at ETAMM 2018 [Emerging Trends in Applied Mathematics and Mechanics], Cracov, Poland, June 18, 2018.
- Plenary Lecture at the Conference "Paths in Mathematical Control Theory", Torino, Italy, February 27,2018.
- One of the 4 main speakers at the Oberwolfach Lectures Seminar Mathematical Theory of Flow-Fluid Structure Interacations , Oberwolfach, Germany, November 21-26,2016.
- Invited one hour address at the AMS Conference, Stony Brook, March 2016.
- Plenary Speaker at IMACS Conference on Nonlinear Evolution Equations and Wave Phenomena, Georgia Center, University of Georgia, April 01-04, 2015.
- Induced to the 2015 Class of AMS Fellows . for contribution to control theory of PDE's, mentorship and service to professional societies.
- Awarded the Kosciuszko Foundation Distinguished Fellow of the Collegium of Eminent Scientists-2014
- Plenary Speaker at SIAM-SEAS, University of Alabama, Birmingham, March 20-25, 2015.
- Plenary Speaker at HYP-RIO 2014, IMPA, Rio de Janeiro, July 26-August 1, 2014.
- Ellis B. Stouffer Distinguished Lecture, Department of Mathematics, University of Kansas. December 3, 2013.
- Bold Aspiration Lecture Series -sponsored by the Provost Office, 2013-2014 Series. December 2013, University
  of Kansas.
- SIAM Reid Prize Lecture, Hyatt Regency, Baltimore, July 2011.
- Listed by StatStats.org in Top 26 Women Professors in Virginia, May 9, 2013. Top 26 Women Professors in Virginia onlineschoolsvirginia.com/top-college-professors-in-virginia/women/
- Commonwealth Professor of Mathematics, August 2011 (Endowed Chair), University of Virginia.
- Awarded **2011 Reid's Award: SIAM 2011 W.T. Idalia Reid Prize** for contribution to *Differential Equations and Control Theory* July 27, 2011.
- ISI's Highly Cited Researcher, http://isihighlycited.com (one of the 250 most highly cited mathematicians worldwide for the period 1981–1999).
  - "These individuals are the most highly cited within each category for the period 1981–1999, and comprise less than one-half of one percent of all publishing researchers."
  - As of January 2020, MathSciNet shows 7010 citations by 1750 authors (see http://www.ams.org/mathscinet/). Google Scholar citation: 15592 with h-index 61

- Eminent Scientist -The Kosciuszko Foundation Collegium List: http://www.thekf.org.programs/eminentscientists.
- Recipient of the **Presidential Professorship in Sciences**, Warsaw, Presidential Palace, October 9, 2012.
- Featured review by Math Reviews in 2001, Research monograph: Control Theory for Partial Differential Equations: Continuous and Approximation Theories, Vol. 1, Abstract Parabolic Systems, Cambridge University Press, Encyklopedia of Mathematics and its Applications, 680 pp., January 2000 (with R. Triggiani).
- Featured review by Math Reviews in 2001, Research monograph: Control Theory for Partial Differential Equations: Continuous and Approximation Theories, Vol. 2, Abstract Hyperbolic-Like Systems with a Finite Time Horizon, Cambridge University Press, Encyklopedia of Mathematics and its Applications, 422 pp., January 2000 (with R. Triggiani).
- Polish Academy of Sciences Award, overall scientific contributions, 1979.
- Creativity Extension Award, National Science Foundation, 1987-1989.
- IFIP Silver Core Award, International Federation for Information Processing (IFIP), 1989.
- University Research Initiative Award, AFOSR, 1989–1992.
- Barrett Lectures: Principal Lecturer, Univ. of Tennessee, March 1997.
- IEEE Distinguished Lecturer, 1999–2003.
- Main Lecturer CMBS-NSF Conference: Mathematical Control Theory of Coupled PDE's, (10 lectures), Univ. of Nebraska, Aug. 4–9, 1999.
- Distinguished Visiting Scholar: Texas Tech. University, March 2000.
- Principal Lecturer, Control Theory Series, 10 Lectures, Univ. of Jyvaskula, Finland, August 15–28, 1993.
- Principal Lecturer: Autumn School on Evolutions and Applications (5 lectures), Trento, Italy, Nov. 2001.
- 2005 J. Barrett Memorial Lectures: Main Speaker, University of Tennessee, April 2005.
- One of the three Principal Lecturers Summer School: SISSA: Nonlinear Hyperbolic Equations, Trieste, May 2012.
- One of the three Main Lecturers Summer School on Nonlinear Evolutions in PDE's, Koc University, Istambul, July 2012.
- One of the four Principal Lecturers in The Summer School: Recent Advances in PDE's with Applications, University of Milano, Milano, June 17-21, 2013.
- 2004 IEEE Fellow with the citation: For Contribution to Boundary Control Systems, 2004.
- Appointed (January 2006-2010) to The International Advisory Board of the Polish Academy of Sciences.
- Nominating Committee for Nomination of Candidates for the 2008 (24<sup>th</sup>), 2010 (26-th), 2011 (27-th), 2013 (29-th), 2015 (31-st), 2016 (32-nd) JAPAN Prize in Science and Technology https://jpns.japanprize.jp/
- Nominating Committee for the *Kyoto Prize*. Innamori Foundation, Japan.
- Nominating Committee for the SIAM 2014 W.T. Idalia Reid's Prize
- Nominating Committee for Lagrange'a Prize, ICIAM Prize, 2021.
- Awarded Honorary European Union Visiting Professorship at the Department of Mathematics, University of Warsaw, 2010 Poland.

- The Technical Achievement Award by ICNPAA, International Congress Nonlinear Analysis and Applications, with the citation: For Outstanding Contribution to Nonlinear Mathematical Analysis, June 22, 2006, Budapest, Hungary.
- Elected Research Member of the Polish Academy of Sciences-2009-2012.
- Plenary (one-hour) lectures delivered at various national and international meetings, including AMS, SEARCDE, IEEE, IFIP, AIMS, CNRS, and SIAM meetings (see section "Plenary Speaker at Conferences"). Recent Plenary speaker (one of the three-four speakers) at the 29th Annual Southeastern—Atlantic Conference on Differential Equations (SEARCDE-29), Mercer University, GA, October 16–17, 2009, MTNS (Mathematical Theory of Networks and Systems, Fez, Maroco, May 25-28, 2009; ICNPAA 2010 World Congress, Mathematical Problems in Engineering Aerospace and Sciences, Sao Jose dos Campos, Brazil, June 30-July 4, 2010, W.T. Reid Lecture at SIAM 2011 Control Conference, Hyatt Regency, Baltimore, July 24-27, 2011, International School on Recent Advances in PDE;s- Milano, June 17-22, 2013, HYP2014-XV International Conference on Hyperbolic Problems, IMPA. Rio de Janeiro, July 28-August 1, 2014, SIAM SEAS Conference Birmingham, 2015. IMACS Conference Univ of Georgia, May 2015, AMS Conference in Stony Brooke, March 2016, 7-th GPCO Conference, Bedlewo, Polsh Academy of Sciences, August 27-30, 2017; Paths in Mathematical Control Theory, Torino, Italy, March 23-25, 2018; Workshop on Fluid Structure interactions, Milano, March 16-20, 2019; NSF-AFOSR Workshop on Control of PDE's, San Juan, December 5-8, 2018; IFAC 3-rd Workshop on Control of Distributed Parameter Systems, May 20-24, 2019, Oaxaca, Mexico
- Frequently invited to contribute original research papers for special volumes. Recently, in honor of Jacque Luis Lions, A.V. Balakrishnan, Herbert Amann, Giuseppe DaPrato, Gunther Lumer, Peter Lax, Jan Pruss.

## IV RESEARCH INTERESTS: Control Theory of Partial Differential Equations, Applicable Analysis

1. Partial Differential Equations and Related Control Theory

Mixed problems for parabolic and hyperbolic partial differential equations, and related optimization theory. Differential and algebraic Riccati operator equations for optimal control problems with boundary controls.  $H_{\infty}$  theory for PDE's. "Sharp" regularity theory of solutions in the interior and of their traces on the boundary. Boundary stabilization, controllability problems for linear and nonlinear parabolic and hyperbolic PDE's, as well as coupled systems of PDE's (parabolic-hyperbolic, or hyperbolic-hyperbolic coupling). Mathematical control of systems arising in nonlinear elasticity. Flutter suppression, noise control, structural acoustic problems, thermoelastic systems and more generally interactive structures. Mathematical control theory of coupled partial differential equations. Theory of dissipative PDE systems and compact finite-dimensional attractors.

### 2. Numerical Analysis

Finite element and spectral methods for partial differential equations and related control problems. Includes rates of convergence of numerical approximations to mixed problems for partial differential equation, with particular emphasis on non-smooth boundary and initial data. Numerical approximations of differential and algebraic operator Riccati equations arising in boundary optimal control problems. Compensation, estimation theory for PDE's including numerical aspects. Analysis of compensator design and partially observed PDE's.

## 3. Optimization Theory

Applications of abstract optimization theory in the context of general dynamics, including partial differential equations and functional differential equations. Optimal control problems including minimal time, minimal cost problems governed by coupled systems of PDE's.

## 4. Nonlinear Dynamical PDE Systems

Long-time behavior, attractors, inertial manifolds in hyperbolic-like systems including von Karman full systems in mechanics. Optimization, control and long-time behavior of coupled/hybrid PDE systems. Stability and controllability of PDE interactive systems with control on the interface between the two media: (1) structural acoustic interactions - coupling between acoustic wave equation and nonlinear plate equation, (2) fluid structure interactions - coupling between Navier Stokes equation and dynamic system of elasticity or Navier Stokes equation and a thermal equation [Boussinesq system]. PDE problems of potential interest in non-invasisve

treatments in fluids [blood] and High Intensity Focused Ultrasound [HIFU] in medicine: (i) uniform stabilization of Navier Stokes equations by tangential finite dimensional boundary feedback; (2) analysis and control of the third order 9n time PDE arising in HIFU.

## V GRANTS (Principal Investigator)

## V(a) Research grants

### 1. National Science Foundation. (NSF), Applied Mathematics, with R. Triggiani, 1981–1984

National Science Foundation, Applied Mathematics, with R. Triggiani, 1984–1987

National Science Foundation grant to sponsor International Conference on Control of PDE's at the University of Florida, Feb. 3–6, 1986

National Science Foundation, 1987–1989 (Creativity Extension Award with R. Triggiani)

National Science Foundation, Applied Mathematics, with R. Triggiani, 1989–1992

Research Group Award, National Science Foundation, with R. Triggiani, 1989–1992

National Science Foundation, Applied Mathematics, with R. Triggiani, 1992–1995

National Science Foundation, International Exchange Program with France, with R. Triggiani and J. Zolesio (Univ. of Nice), 1993–1996

NSF-American Mathematical Society grant to organize AMS Summer Research Conference on Optimization and PDE's, July 1996

National Science Foundation, Applied Mathematics, with R. Triggiani, 1995–1998

National Science Foundation, Applied Mathematics, with R. Triggiani, 1998–2001

National Science Foundation and NRC, International Grant (Russia) (joint with I. Chueshov), 2001

National Science Foundation, Applied Mathematics, with R. Triggiani, 2001–2006

National Science Foundation, International Grant with INRIA (France), 2003–2006

National Science Foundation, Applied Mathematics, with R. Triggiani, 2006–2011

National Science Foundation, Applied Mathematics, with R. Triggiani, 2011-2016.

National Center for Science, Applied Mathematics, with K. Szulc and A. Zochowski, 2015-2018

National Science Foundation, Applied Mathematics, with R. Triggiani, 2017-2021.

National Science Foundation, (NSF-DMS), DUE IUSE Research, co-Pi with J, Haddock PI. 2018-2022.

## 2. Air Force Office of Scientific Research (AFOSR), with R. Triggiani, 1984–1985

Air Force Office of Scientific Research, with R. Triggiani, 1985–1986

Air Force Office of Scientific Research, with R. Triggiani, 1986–1987

Air Force Office of Scientific Research to sponsor International Conference at the University of Florida, Feb. 3–6, 1986

Air Force Office of Scientific Research, with R. Triggiani, 1987–1989

University Research Initiative (jointly with A. Manitius [G. Mason University], and R. Triggiani), Air Force Office of Scientific Research, 1989–1992

Air Force Office of Scientific Research, with R. Triggiani, 2009–2012

Air Force Office of Scientific Research, with R. Triggiani, 2012-2015.

#### 3. NATO Grant (joint with L. Pandolfi, Univ. of Torino, Italy and R. Triggiani), 1993–1997

#### 4. NASA Grant, Virginia Consortium, support of graduate students, 1992–2000

NASA Grant, VGRC, support of graduate students, 2005–2008

NASA Grant, VGRC, support of graduate students, 2009–2013.

#### 5. Army Research Office (ARO), with R. Triggiani, 1996–1999

Army Research Office (ARO), with R. Triggiani, 1999–2003

Army Research Office (ARO), with R. Triggiani, 2003–2006

## V(b) Conference grants

- 1. IFIP Grant to sponsor International Conference on Control of PDE's, at the University of Florida, Feb. 3–6, 1986
- 2. NSF Grant (with G. Chen, Texas A&M Univ.) to sponsor Symposium on Control of PDE's (in honor of D. Russell), Texas A&M, College Station, October 21, 1993
- 3. SIAM Grant (with S. Cox, Rice Univ.), Symposium on Industrial Problems in Control, San Diego, CA, July 22–23, 1994
- 4. IFIP Grant (with M. Malanowski, Polish Academy of Sciences) to sponsor IFIP Conference on Modeling and Optimization with Applications to Engineering, Warsaw, Poland, July 17–21, 1995
- 5. AMS-NSF Grant (with S. Cox, Rice Univ. Houston) for AMS Summer Research Conference on Optimization and PDE's, Mt. Holyoke, June 16–20, 1996
- NSF-IMA Grant (with G. Uhlman, Univ. Washington, C. Crook, Univ. of Pennsylvania) to sponsor IMA Workshop on Geometric Methods in Inverse Problems and Control, Univ. of Minnesota, Minneapolis, July 6–27, 2001
- 7. IFIP and CNRS Grant (with J. P. Zolesio INRIA, Nice, France) to sponsor 21st IFIP Conference on System Modeling and Optimization, Sophia Antipolis, France, July 21–23, 2003
- 8. IFIP and CNR Grant (with L. Pandolfi, Univ. of Torino) to sponsor 22nd IFIP Conference on Modeling and Optimization, Torino, Italy, July 2005
- 9. NSF-AMS Grant (with R. Triggiani, F. Ancona, Univ. of Bologna, W. Littman, Univ. of Minnesota) to sponsor AMS Summer Research Conference on Control of Nonlinear PDE Systems, Snowbird, Utah, July 3–8, 2005
- 10. IFIP Grant (with W. Mitkowski, Jagiellonski Univ. Krakow) to sponsor 23rd IFIP Conference on Modeling and Optimization, Krakow, Poland, July 23–27, 2007, Chair of IPC
- 11. NSF Grant (with M. Krstic, Univ. of San Diego) to sponsor NSF Workshop Horizons in Infinite Dimensional Deterministic and Stochastic Systems with Applications to Engineering, Univ. of California, Los Angeles, UCLA, January 30–February 2, 2009
- 12. SEARCDE 2013- South Eastern Regional Conference on Differential Equations [co-Pi with G. Goldstein, R. Triggiani].
- 13. NSF-BIRS Grant (with L. DeTeresa and K.Morris) for Conference on New Trends in Infinite Dimensional Control Theory, Banff International Research Center, July 16-21, 2017, Banff, Canada.

## VI Ph.D. THESES DIRECTED (first employment noted in parenthesis)

- 1. Sung Chang (Assistant Professor, Mathematics Department, Dang University, Busan-Korea), "Riccati Equations for Nonsymmetric and Nondissipative Hyperbolic Systems," University of Florida, Dec. 1985.
- 2. Gilbert Choudoury (Assistant Professor Mathematics Department, University of Cincinnati). "Fully discrete Galerkin approximations of parabolic boundary value problems with non-smooth boundary data," University of Florida, Sept. 1987.
- 3. Elisabeth Bradley (Assistant Professor, Department of Mathematics, University of Louisville, KY). "Local and global exponential stabilization results for nonlinearly perturbed plates models where nonlinearities appear on the boundary," University of Virginia, May 1991.

- 4. Mary Ann Horn (NSF and IMA Postdoctoral Fellowship in the Department of Mathematics, University of Minnesota, Minneapolis, Professor University of Vanderbilt, Program Director NSF.). "Exact controllability and uniform stabilization of the Euler Bernoulli and Kirchoff plate equations with boundary feedback acting via bending moments," University of Virginia, May 1992.
- 5. Daniel Tataru (Assistant Professor, Department of Mathematics, Northwestern University, Evanston, Professor at UC Berkeley, Recipient of Sloan Fellowship, 1995, Bocher Prize 2002, Member of Academy of Sciences.). Co-advised with R. Triggiani. "A priori pseudoconvexity energy estimates in domains with boundary and exact boundary controllability for conservative P.D.E.," University of Virginia, May 1992.
- Erik Hendrickson (Assistant Professor, Dept. of Mathematics, University of Arkansas and NRC Fellowship at Wright Patterson AFOSR Lab, Dayton, Ohio, NSA Washington DC.). "Approximation theory for compensator design for partially observed hyperbolic systems," University of Virginia, May 1995.
- 7. George Avalos (Assistant Professor, Dept. of Mathematics, Texas Tech University and NSF-IMA Postdoc at the IMA Institute at the University of Minnesota, Prof University of Nebraska, Lincoln. ). "An analysis and regulator theory for the active control of a system of PDE's arising in smart structures and materials," University of Virginia, May 1995.
- 8. Richard Marchand (NRC Postdoctoral Fellowship at the Army Research Laboratory, AMSRL-WT-PD, Aberdeen, MD). "Approximations of control problems arising in dynamics of shells," University of Virginia, 1996.
- 9. John Ong (Assistant Professor, Mary Baldwin College). "Global existence, uniqueness and stability of a quasilinear hyperbolic equation with boundary dissipation," University of Virginia, Dec. 1997.
- Guancgao Ji (Postdoc Fellow at Mittag Leffler Institut, Stockholm and Assistant Professor, Mathematics Department, Texas Tech. Univ., Lubbock). "Boundary stabilizations of PDE's—theory and algorithms," University of Virginia, 1998.
- 11. James Masters (Cycorp, Artificial Intelligence Software Development Company, Austin, Texas, Credit Suisse, NY, Data Scientist Q.A.). "Exact boundary controllability and uniform stabilization of selenoidal electromagnetic fields in a bounded region without geometric conditions," University of Virginia, Dec. 1999.
- 12. William Heyman (Lockheed-Martin Research Corp., Philadelphia, PA). "Finite-dimensional attractors in non-linear elasticity," University of Virginia, 1998.
- 13. Catherine Lebiedzik (NSF Posdoctoral Fellowship followed by tenure-track Assistant Professorship at Mathematics Department, Wayne State University, Detroit, MI), "Stability properties of structural acoustic models with thermoelastic effects," University of Virginia, May 2001.
- 14. Cavit Hafizoglu (Enterprise Risk Management, SunTrust, Atlanta, Georgia, Well Fargo, Charlotte) "Linear quadratic boundary/point control of stochastic PDE's with unbounded coefficients," University of Virginia, August 2006.
- 15. Daniel Toundykov (3-year Postdoctoral Fellow at the Mathematics Department, University of Nebraska, Lincoln, Associate Professor TT University of Nebraska Lincoln. ). "Long-term dynamics of semilinear wave equation with localized nonlinear dissipation, critical source term and mixed boundary conditions," University of Virginia, May 2007.
- 16. Amjad Tuffaha (3-year Postdoctoral Fellow at the Mathematics Department, University of Southern California (USC), Los Angeles, CA) "Wellposedness, solvability and optimal control of coupled partial differential equations with an interface," University of Virginia, May 2007.
- 17. Inger Daniels (Postgraduate fellowship at Tepper School of Business, CMU, Carnegie Mellon, Pittsburgh, V-President Citi Investment Research and Analysis, NY, 2014- present Director of Academic Excellence, Wake Forest University-Business School.), "Wellposedness of a nonlinear structural acoustic model with a Boussinesq plate equation," University of Virginia, May 2008.

- 18. Lorena Bociu (NSF International Research Fellowship with Institute Analyse Nonlineaire-CNRS, Univ. of Nice-Sophie Antipolis, France (2 years) followed by TT Assistant Prof and Assoc Prof.. in the Department pf Mathematics, North Carolina State-Raleigh, NC), Receipient of 2019 PECASE [Presidential Early Career Award Stem] Award, "Existence, uniqueness and blow-up of solutions to wave equations with supercritical boundary interior sources and damping," University of Virginia, May 2008.
- 19. Turker Ozsari, (Postdoctoral Fellow at Institute Henri Poincare, Paris, France, Assoc Professor Ismir Inst of Technology, Turkey.). "Stabilization of nonlinear Schrodinger equations", University of Virginia, August 2010.
- 20. Yongjin Lu, (Tenure track Assistant Professorship at Virginia State University (VSU)). "Asymptotic stability of Solutions to Coupled PDEs with Interface", University of Virginia, December, 2011.
- 21. Jameson Graber, (Postdoctoral Fellow at INRIA, Paris, TT Assistant Prof Baylor University.), "The wave equation with generalized nonlinear acoustic boundary conditions", University of Virginia, August, 2012.
- 22. Justin Webster, (Postdoctoral Fellow, Mathematics Department, Oregon State University followed by Postdoc at NCState and TT at University of Maryland Baltimore), "Analysis of Flow-Plate Interactions: Semigroup Well-Posedness and Long Tome Behavior", University of Virginia, August 2012.
- 23. Nicolas Fourrier, (Research Analyst at CGG (Companie Generale de Geophysique), Paris, France, Data Scientist at Soul Machines, Auckland, Australia.), "Analysis of existence, regularity and stability of solutions to wave equations with dynamic boundary conditions", University of Virginia, May 2013.
- Christpher Lefler, (Research Analyst at Northrop Grumman Corporation, Washington, DC), "Wellposedness
  and Stability of Nonlinear Schrodinger Equations with Dynamic/Wentzell Boundary Conditions". University
  of Virginia, May 2014.
- 25. Jason Knapp,: (Chief Science Officer- Riverain Technologies, Philadelphia). "Stability and Convergence of Approximate Solutions to the Moore-Gibson-Thomson Equation", University of Virginia, May 2014.
- 26. Rodrigo Monteiro (Postdoc at UFRJ (University Federal Rio de Janeiro, Brasil) "Long time dynamics of two classes of beam and plate equations.", University of Sao Paolo, Sao Paolo, Brasil, April 2016.
- 27. Arthur Caixeta, (Postdoc at Univ. of Maringa, Brasil and Assist. Professor University of Londrina, Brasil.) "Long time behavior for an equation of MGT type". University of Maringa, Brasil, May 2016.
- 28. Xiang Wan, (Postdoc Wayne State University), "Global Well-Posedness and Exponential Stability for a Non-linear Thermoelastic Kirchhoff- Love Plate System", University of Virginia, July, 2017.
- 29. Buddhika Priyasad (ERC Postdoc University of Graz, Austria), "Uniform Stabilization of Navier Stokes Equations in  $l_q$  based Sobolev and Besov spaces", Co-advised with R. Triggiani, University of Memphis, May, 2019.
- 30. Sutthirut Charnoephon, (Assistant Professor DePauw University), "Vanishing relaxation time dynamics of the JMGT equation arising in high frequency ultrasound", University of Memphis, May 2020.
- 31. Marcelo Bongarti (Postdoctoral Fellow, Weiestrass Institute, Berlin). "On nonlinear acoustic waves of third-order (in time) and applications", University of Memphis, May, 2021.
- 32. Stephen Guffey, "Local null-controllability of a chemotaxis model for a bacterial infection in a radially symmetric chronic wound". University of Memphis, August 2021

## VII POSTDOCTORAL FELLOWS

- 1. Josef Korbicz (Poland, University of Wroclaw), 1991
- 2. Sung Kang Chang (Korea, Donsang University), 1996
- 3. Shuping Chen (China, Zhangdou University), 1988
- 4. Peng. F. Yao (China, Univ. of Beijing), 1996–1998

- 5. John Cagnol (Univ de Nice, France), 1999–2000
- 6. Francesca. Bucci (Italy, Univ. of Firenze), 2001
- 7. Anastasia Ruzmaikina (Princeton Univ.), 1999–2002
- 8. Catherine Lebiedzik, [Universite de Nice, France] 2002–2003
- 9. John Cagnol (Univ. of Nice, France), 2001–2003
- 10. Il Hyo Jung (Pusan University, Korea), 2005–2006
- 11. Xangjin Xu (John Hopkins, Baltimore, MD), 2004-2007
- 12. Pelin Geredeli, HCTPE, Ankara, Turkey, 2011. Now Asoc Prof Iowa State University, Ames.
- 13. Turker Ozsari, Koc University, Istanbul, Turkey, 2012.
- 14. Zhifei Zhang, Academia Sinica, Bejing,. 2013.
- 15. Xiaojun Wang, PennState University, 2014.
- 16. Michael Pokojovy, University Karlsruhe, 2012, 2013, 2016.
- 17. Jose Rodriquez, Sao Paolo University, Brasil, 2019- 2021.

#### V III PUBLICATIONS

## VIII(a) Books. Research monographs

- 1. Differential and Algebraic Riccati Equations with IR. Triggiani, Applications to Boundary/Point Control Problems: Continuous Theory and Approximation Theory, Springer Verlag, Lecture Notes 164 (1991), 160 pp.
- 2. I. Lasiecka and R. Triggiani. : Control Theory for Partial Differential Equations: Continuous and Approximation Theories; Vol 1: Abstract Parabolic Systems (680 pp.), Encyclopedia of Mathematics and Its Applications Series, Cambridge University Press, January 2000
- 3. Control Theory for Partial Differential Equations: Continuous and Approximation Theories; Vol 2: Abstract Hyperbolic-like Systems over a Finite Time Horizon (422 pp.) (with R. Triggiani), *Encyclopedia of Mathematics and Its Applications Series*, Cambridge University Press, January 2000.
- 4. Stabilization and Controllability of Nonlinear Control Systems Governed by Partial Differential Equations (with R. Triggiani), in preparation under contract from Springer Verlag. First draft of 500 pages available.
- NSF-CBMS Lecture Notes: Mathematical Control Theory of Coupled PDE's, SIAM, Philadelphia, 242 pages, 2002.
- 6. Functional Analytic Methods for Evolution Equations (co-authored with G.Da Prato, A.Lunardi, L.Weis, R. Schnaubelt), Springer Verlag Lecture Notes in Mathematics, 254 pages, 2004.
- 7. Tangential Boundary Stabilization of Navier Stokes Equations (with V. Barbu and R. Triggiani), Memoires of American Mathematical Society, Vol. 181, pp. 1–125, 2006.
- 8. Long-Time Behavior of Second-Order Evolution Equations with Nonlinear Damping (with I. Chueshov), Memoires of American Mathematical Society, Vol. 195, AMS, 180 pages, 2008.
- 9. Von Karman Evolutions (with I. Chueshov), Monograph Series, Springer Verlag. 2010.
- I. Chueshov and I. Lasiecka, Well-posedness and long time behavior in nonlinear dissipative hyperbolic-like evolutions with critical exponents. Applied Mathematics, Vol. 6, HCDTE Lecture Notes. Part I. Nonlinear Hyperbolic PDEs, Dispersive and Transport Equations, AIMS, 2013.

- 11. Mathematical Theory of Evolutionary Fluid-Flow Structure Interactions, [with B. Kaltenbacher, I. Kukawica, I. Lasiecka, R. Triggiani, A. Tuffaha, J. Webster], Oberwolfach Seminars, vol 48, 307 pages, *Birkhauser* 2018.
- 12. Stabilization of Navier-Stokes equations from the boundary [with B. Priyasad and R. Triggiani] -under contract with London Mathematical Society, Lecture Notes.

## VIII(b) Books edited

- 1. Control Problems for Systems Described by Partial Differential Equations and Applications (with R. Triggiani), Springer Verlag Lecture Notes 97, 1987.
- 2. Modelling and Inverse Problems of Control for Distributed Parameter Systems (with A. Kurzhanski), Springer Verlag Lecture Notes in Control and Information Sciences 154, 1991.
- 3. Control Problems in Industry (with B. Morton), Birkhäuser, Progress in Systems and Control Theory 21, 1995.
- 4. Optimization Methods in PDE's (with S. Cox), AMS, Contemporary Mathematics, 1997.
- 5. System Modeling and Optimization (with A. Dontchev, P. Kall, A. Olbrot, and M. Polis), Chapman and Hall, Research Notes in Mathematics Series, 1999.
- 6. Control of Nonlinear Distributed Systems (with G. Chen and J. Zhou), Marcel Dekker, Lecture Notes in Pure and Applied Mathematics, Vol. 218, 2001.
- Optimal Control of Complex Structures (with K-H. Hoffman, G. Leugering, J. Sprekels, F. Troltzsch), Birkhäuser, Vol. 139, 2002.
- 8. Analysis and Optimization of Differential Systems (with V. Barbu, D. Tiba and C. Varasan), Kluwer AP, 2003.
- 9. Geometric Methods in Inverse Problems and Control Theory, (with C. Cooke, G. Uhlmann and M. Vogelious), Springer Verlag, 2003.
- 10. Special Issue of Control and Cybernetics (with Jan Sokolowski), dedicated to Prof. K. Malanowski, Vol. 32, No. 3, 2003.
- 11. Control Methods in PDE-Dynamical Systems (with F. Ancona, W. Littman and R. Triggiani), AMS-SIAM Joint Summer Research Conference, Contemporary Mathematics, AMS, vol. 426. 2007
- 12. Control Theory of PDE's, guest editor (with L. Pandolfi) for the Special Issue in memory of J.L.Lions, of the journal *Applied Mathematics and Optimization*, Springer Verlag, Vol. 55, No. 2, 2007.
- 13. Special two volumes for *Applicationae Mathematicae*, Vol. 35(3) and 35(4), 2008. Journal of Polish Academy of Sciences, Institute of Mathematics, funded in 1953 by H. Steinhaus.
- 14. Invited Special Issue "Qualitative Behavior of Nonlinear Evolutionary PDE's," *Discrete and Continuous Dynamical Systems* (co-edited with M. Nakao and G. Todorova), Vol 2, Number 3, 2009 .
- 15. Advances in Dynamics and Control: Theory Methods and Applications (co-edited with with S. Sivasundaram, J. Vasandhara, F. Udwadia), Special volume in honor of A. V. Balakrishnan, *Cambridge Scientific Publishers*, 2011.
- 16. Progress in Analysis and Its Applications. Proceedings of the 7-th ISAAC Congress. Chapter: Control and Optimization of Nonlinear Evolutionary Systems (with F. Bucci), ISAACS, 2011
- 17. Special Issue In Memory of A.V. Balakrishnan. Coedited with: A. Bensoussan, I. Kukavica, S. Mitter, R. Triggiani Applied Mathematics and Optimization, vol 73 (2016), no. 3,
- 18. Special Issue on Control, Optimization and PDE dedicated to Professor Viorel Barbu on the occasion of his 75th birthday. Coedited with Boris Mordukhovich, Simeon Reich and Alexander J. Zaslavski, *PAFA* 2018.

19. A Tribute to Igor D. Chueshov (1951-2016). Coedited with L. Arnold, T. Caraballo and M. Scheutzov. *Discrete and Continuous Dynamical Systems Series B, AIMS* 2018, vol 23. 2018.

### VIII(c) Invited review papers

- 1. Boundary stabilization problems for hyperbolic dynamics—A Review, Lecture Notes in Control and Information Sciences '84, Systems Modelling and Optimization, Springer Verlag, pp. 499–522 (1986).
- 2. Algebraic Riccati equations arising in boundary/point control: A review of theoretical and numerical results, Part I: continuous theory, Part II: Approximation theory (with R. Triggiani), *Perspectives in Control Theory*, Birkhäuser, pp. 175–235 (1990).
- 3. Recent advances in regularity of second-order hyperbolic mixed problems and applications (with R. Triggiani) for the series, *Dynamics Reported*, Springer Verlag, Vol. 3, pp. 104–162 (1994).
- 4. Riccati equations arising from boundary and point control problems, invited review paper for INRIA, Conference Analysis and Optimization of Systems, LNCIS, Springer Verlag, Vol. 185, pp. 23–46 (1993).
- 5. Control of systems governed by PDE's—A historical perspective, 34-th IEEE-CDC Conference, p. 2792 (1995).
- 6. The case of differential geometry in the control of single and coupled PDE's, the structural acoustic chamber (with R. Gulliver, W. Littman and R. Triggiani), *The IMA Volumes in Mathematics and its Applications*, Springer Verlag, Vol. 137, pp. 73–183 (2003).

#### VIII(d) Refereed journal articles

- 1. Conical approximations of sets, Control and Cybernetics, Vol. 4, No. 3–4 (1975).
- 2. Finite difference approximation of optimal control for systems described by nonlinear differential equations with delay, *Control and Cybernetics*, Vol. 5, No. 1, pp. 35–67 (1976).
- 3. On regularity of solutions to convex optimal control problems with control constraints for parabolic systems (with K. Malanowski), *Control and Cybernetics*, Vol. 6, No. 3–4, pp. 57–74 (1977).
- 4. Generalizations of Dubovitsky-Mulutyn conditions, *Journal of Optimization Theory and Applications*, Vol. 24, No. 3, pp. 421–436 (1978).
- 5. On discrete-time Ritz-Galerkin approximation of optimal control problems with control constraints for parabolic systems (with K. Malanowski), *Control and Cybernetics*, Vol. 7, No. 1, pp. 20–37 (1978).
- Boundary control problems: Regularity of optimal solutions, Applied Mathematics and Optimization, Vol. 4, pp. 301–327 (1978).
- 7. State constrained control problems for parabolic systems: Regularity of optimal solutions, *Applied Mathematics* and *Optimization*, Vol. 6, pp. 1–29 (1980).
- 8. Boundary control for parabolic systems: Finite element approximation, Applied Mathematics and Optimization, Vol. 6, pp. 31–62 (1980).
- 9. A unified theory for abstract parabolic boundary problems: A semi-group approach, *Applied Mathematics and Optimization*, Vol. 6, pp. 287–333 (1980).
- 10. A cosine operator approach to modelling  $L_2(0, T; L_2(\Omega))$  boundary input hyperbolic equations (with R. Triggiani), Applied Mathematics and Optimization, Vol. 7, pp. 35–83 (1981).
- 11. Hyperbolic equations with Dirichlet boundary feedback via position vector: Regularity and almost periodic stabilization, Part I (with R. Triggiani), Applied Mathematics and Optimization, Vol. 8, pp. 1–37 (1981).
- 12. Hyperbolic equations with Dirichlet boundary feedback via position vector: Regularity and almost periodic stabilization, Part II (with R. Triggiani), Applied Mathematics and Optimization, Vol. 8, pp. 103–130 (1982).

- 13. Hyperbolic equations with Dirichlet boundary feedback via position vector: Regularity and almost periodic stabilization, Part III (with R. Triggiani), Applied Mathematics and Optimization, Vol. 8, pp. 199–221 (1982).
- 14. Structural assignment of Neumann boundary feedback parabolic equations (with R. Triggiani), Annali Mat. Pura e Appl. (IV), Vol. XXXII, pp. 131–175 (1982).
- 15. Stabilization and structural assignment of Dirichlet boundary feedback parabolic equations (with R. Triggiani), SIAM Journal on Control, Vol. 21, No. 5, pp. 766–803 (1983).
- 16. Feedback semigroups and cosine operators for boundary feedback parabolic and hyperbolic equations (with R. Triggiani), *Journal Diff. Equations*, Vol. 47, No. 2, pp. 246–272 (1983).
- 17. Stabilization of Neumann boundary feedback parabolic equations: The case of trace in the feedback loop (with R. Triggiani), *Applied Mathematics and Optimization*, Vol. 10, pp. 307–350 (1983).
- 18. Dirichlet boundary control problem for parabolic equations with quadratic cost: Analyticity and Riccati feedback synthesis (with R. Triggiani), SIAM Journal on Control and Optimization, Vol. 21, No. 1, pp. 41–67 (1983).
- 19. Regularity of hyperbolic equations under  $L_2(O, T; L_2(\Omega))$  Dirichlet boundary terms (with R. Triggiani), Applied Mathematics and Optimization, Vol. 10, pp. 275–286 (1983).
- 20. Dirichlet boundary stabilization of the wave equation with damping feedback (with R. Triggiani), Journal of Mathematical Analysis and Applications, Vol. 87, No. 1, pp. 112–130 (1983).
- 21. Ritz-Galerkin approximation of time-optimal boundary control, SIAM Journal on Control and Optimization, Vol. 22, No. 3, pp. 477–499 (1984).
- 22. Nondissipative boundary stabilization of hyperbolic equations with boundary observation (with R. Triggiani), Journal de Mathematique Pure et Applique, Vol. 63, pp. 59–80 (1984).
- 23. Perturbations of the spectrum and their applications to stabilization of vibrating strings (with J. P. McKenna), SIAM Journal of Mathematical Analysis, Vol. 15, No. 6 (1984).
- 24. Convergence estimates for semidiscrete approximations of non-selfadjoint parabolic equations, SIAM Journal on Numerical Analysis, Vol. 21, No. 5, pp. 894–908 (1984).
- 25. Finite dimensional boundary feedback control problems for linear infinite dimensional systems (with W. Schappacher and W. Desch), *Israel Journal of Mathematics*, Vol. 51, No. 3, pp. 177–207 (1985).
- 26. Finite rank, relatively bounded perturbations of  $C_0$ -semigroups, Part I: Well posedness and boundary feedback hyperbolic dynamics (with R. Triggiani), Annali Scuola Normale Superiore di Pisa, Vol. XII, No. 4 (1985).
- 27. Approximations of Riccati equations for abstract boundary control problems: Applications to hyperbolic systems, *Numerical Functional Analysis and Optimization*, Vol. 8, No. 3–4, pp. 207–243 (1985).
- 28. Riccati equations for hyperbolic partial differential with  $L_2[O, T; L_2(\Omega)]$  Dirichlet boundary terms (with R. Triggiani), SIAM Journal on Control, Vol. 24, No. 5, pp. 884–926 (1986).
- 29. Riccati equations for nonsymmetric and nondissipative hyperbolic systems (with S. Chang), *Journal of Mathematical Analysis and Applications*, Vol. 116, No. 2, pp. 378–414 (1986).
- 30. Finite rank, relatively bounded perturbations of  $C_0$ -semigroups, Part II: Spectrum allocation and Riesz basis in parabolic and hyperbolic feedback systems (with R. Triggiani), Ann. Matem. Pura and Applic. IV, Vol. CXLIII, pp. 47–100 (1986).
- 31. Non-homogeneous boundary value problems for second order hyperbolic operators (with J. L. Lions and R. Triggiani), *Journal de Mathematique Pure et Appliques*, Vol. 65, pp. 149–192 (1986).
- 32. Galerkin approximations of abstract parabolic boundary value problems with 'rough' boundary data:  $L_p$  theory, Mathematics of Computations, Vol. 47, No. 175, pp. 55–75 (July 1986).

- 33. A direct study of Riccati equations arising in hyperbolic boundary control problems (with G. DaPrato and R. Triggiani), *Journal of Differential Equations*, Vol. 64, No. 1, pp. 26–47 (1986).
- 34. Regulator problems for parabolic equations with Dirichlet boundary control; Riccati's feedback synthesis, regularity, Galerkin approximations, Part I (with R. Triggiani), *Journal of Applied Mathematics and Optimization*, Vol. 16, pp. 147–168 (1987).
- 35. Regulator problems for parabolic equations with Dirichlet boundary control; Riccati's feedback synthesis, regularity, Galerkin approximations, Part II (with R. Triggiani), *Journal of Applied Mathematics and Optimization*, Vol. 16, pp. 187–217 (1987).
- 36. Uniform exponential energy decay in a bounded region with  $L_2(0, T; L_2(\Omega))$  feedback control in the Dirichlet boundary Conditions (with R. Triggiani), Journal of Differential Equations, Vol. 66, No. 3, pp. 340–390 (1987).
- 37. Exact controllability of the Euler-Bernoulli's equations with  $L_2(\Sigma)$  control only in the Dirichlet boundary conditions (with R. Triggiani), Atti della Accademia Nazionale dei Lincei Rendiconti Classe di Scienze, fisiche, mathematiche e naturali, Vol. LXXXI, pp. 35–42 (1987).
- 38. A lifting theorem for the time regularity of solutions to abstract equations with unbounded operators and applications to hyperbolic equations (with R. Triggiani), *Proceedings of AMS*, Vol. 104, No. 3, pp. 745–755 (1988).
- 39. Exact controllability of the Euler-Bernoulli equations with controls in the Dirichlet and Neumann boundary conditions—A nonconservative case (with R. Triggiani), SIAM Journal on Control, Vol. 27, No. 2, pp. 330–374 (1989).
- 40. Regularity theory for a class of nonhomogeneous Euler-Bernoulli equations: A cosine operator approach (with R. Triggiani), *Bollettino Unione Matematica Italiana*, 7–2B, pp. 199–228 (1988).
- 41. Regularity and strong convergence of a variational approximation to nonhomogeneous Dirichlet hyperbolic boundary value problems (with J. Sokolowski), *SIAM Journal of Mathematical Analysis*, Vol. 19, No. 3, pp. 528–540 (1988).
- 42. Boundary stabilization of hyperbolic and parabolic equations with nonlinearly perturbed boundary conditions, *Journal of Differential Equations*, Vol. 75, No. 1, pp. 53–87 (1988).
- 43. Trace regularity results for wave equation with homogenous Neumann boundary conditions and compactly supported data (with R. Triggiani), *Journal of Mathematical Analysis and Applications*, Vol. 141, No. 1, pp. 49–71 (1989).
- 44. Algebraic Riccati Equations with Non-Smooth Observations Arising in Hyperbolic and Petrovsky Type Equations (with F. Flandoli and R. Triggiani), *Annali di Mathemetica Pura et Applicata*, (IV) Vol. CLIII, pp. 307–382 (1989).
- 45. Exact boundary controllability for the wave equation with Neumann boundary control (with R. Triggiani), Applied Mathematics and Optimization, Vol. 19, No. 3, pp. 243–291 (1989).
- 46. Differentiability and convergence rates of approximating semigroups for retarded functional differential equations (with A. Manitius), SIAM Journal on Numerical Analysis, Vol. 25, No. 4, pp. 883–907 (1988).
- 47. Semidiscrete approximations of hyperbolic boundary value problems with nonhomogeneous Dirichlet boundary conditions (with J. Sokolowski), SIAM Journal of Mathematical Analysis, Vol. 20, No. 6, pp. 1366–1387 (1989).
- 48. Exact controllability of the Euler-Bernoulli equation with boundary controls for displacement and moment (with R. Triggiani), *Journal of Mathematical Analysis and Applications*, Vol. 146, No. 1, pp. 1–33 (1990).
- 49. Sensitivity analysis of control constrained optimal control problems for wave equations (with J. Sokotowski), SIAM Journal on Control, Vol. 29, No. 5, pp. 1128–1149 (1991).

- 50. Sharp regularity results for second order hyperbolic equations of Neumann type (with R. Triggiani), Annali di Matemetica Pura et Applicata, (IV) Vol. CLVII, pp. 285–367 (1990).
- 51. The wave equation with nonlinear boundary conditions (with A. Stahel), Nonlinear Analysis, Theory and Applications, Vol. 15, No. 1, pp. 39–58 (1990).
- 52. Stabilization of wave and plate-like equations with nonlinear dissipation on the boundary, *Journal of Differential Equations*, Vol. 79, No. 2, pp. 340–381 (1989).
- 53. Stabilization of the semilinear wave equation with viscous damping, *Journal of Differential Equations*, Vol. 86, No. 1, pp. 73–87 (1990).
- 54. Asymptotic behavior of the solutions of the Kirkhoff plate with nonlinear dissipation in the bending moments and shear forces, *Journal of Applied Mathematics and Optimization*, Vol. 21, pp. 167–189 (1990).
- 55. Exact controllability for semilinear waves and plates, (with R. Triggiani), Journal of Applied Mathematics and Optimization, Vol. 23, No. 2, pp. 109–155 (1991).
- 56. Approximations of solutions to infinite dimensional Algebraic Riccati Equations with unbounded input operators, *Numerical Functional Analysis and Optimization*, Vol. 11, pp. 303–378 (1990).
- 57. Approximation theory for Algebraic Riccati Equations with unbounded input operators: The case of analytic semigroups (with R. Triggiani), *Mathematics and Computations*, Vol. 57, No. 196, pp. 639–662 (1991).
- 58. Uniform exponential energy decay of wave equations in a bounded region—without any geometric conditions (with R. Triggiani), *Journal of Applied Mathematics and Optimization*, Vol. 25, No. 2, pp. 189–224 (1992).
- 59. Semidiscrete approximations of parabolic boundary value problems with nonsmooth boundary data (with G. Choudoury), *Numerical Functional Analysis and Optimization*, Vol. 12, No. 5-6, pp. 463–487 (1991).
- 60. Exact controllability and uniform stabilization of Euler-Bernoulli Equations with boundary control only in  $\Delta w|_{\Sigma}$  (with R. Triggiani), Bull. Unione Math. Italiana, Vol. 7, 5–B, pp. 665–702 (1991).
- 61. Regularity theory of hyperbolic equations with non-homogeneous Neumann boundary conditions, Part II: General boundary data (with R. Triggiani), *Journal Differential Equations*, Vol. 94, pp. 112–164 (1991).
- 62. Exponential stabilization of hyperbolic systems with nonlinear, unbounded perturbation—Riccati operator approach, *Applicable Analysis*, Vol. 42, pp. 243–261 (1991).
- 63. Exact controllability and uniform stabilization of Kirchoff plates with boundary control only on  $\Delta w|_{\Sigma}$  and homogeneous boundary displacement (with R. Triggiani), *Journal of Differential Equations*, Vol. 93, No. 1, pp. 62–101 (1991).
- 64. Convergence rates for the approximations of the solutions to algebraic Riccati Equations with unbounded coefficients—Case of analytic semigroups, *Numerische Mathematik*, Vol. 63, pp. 357–390 (1992).
- 65. Differential Riccati equations with unbounded coefficients: applications to boundary control/boundary observation hyperbolic problems (with R. Triggiani), *Journal of Nonlinear Analysis*, Vol. 17, No. 7, pp. 655–682 (1991).
- 66. Riccati differential equations with unbounded coefficients and non-smoothing terminal condition—The case of analytic semigroups (with R. Triggiani), SIAM Journal of Mathematical Analysis, Vol. 23, No. 2, pp. 449–481 (1992).
- 67. Regularization and finite element approximations of the wave equation with Dirichlet boundary data (with P. Neittanmaki and J. Sokotowski), *Numerical Analysis and Mathematical Modelling*, Vol. 24, pp. 329–353 (1990).
- 68. Optimal regularity, exact controllability and uniform stabilization of Schrödinger equation (with R. Triggiani), Journal of Differential and Integral Equations, Vol. 5, No. 3, pp. 521–535 (1992).

- 69. Existence of the solutions to Euler-Bernoulli plate model with semilinear boundary conditions (with M. E. Bradley), Control and Cybernetics, Vol. 3, pp. 28–46 (1990).
- 70. Local exponential stabilization for a nonlinearly perturbed von Karman plate (with M. E. Bradley), *Journal of Nonlinear Analysis*, *Theory and Application* Vol. 18, No. 4, pp. 333–343 (1992).
- 71. Negative norm estimates for a fully discrete finite element approximations of the wave-equation with non-homogeneous  $L_2$ -Dirichlet boundary data (with L. Bales), Computation of Mathematics, Vol. 64, No. 209, pp. 89–115 (1995).
- 72. Feedback exact nullcontrollability for unbounded control problems in Hilbert spaces (with S. Chen), *Journal of Optimization Theory and Applications*, Vol. 74, No. 2, pp. 191–219 (1992).
- 73. Global uniform decay rates for the solutions to wave equation with nonlinear boundary conditions, *Applicable Analysis*, Vol. 47, pp. 191–212 (1992).
- 74. Uniform boundary stabilization of semilinear wave equation with nonlinear boundary conditions (with D. Tataru), Journal of Differential and Integral Equations, Vol. 6, No. 3, pp. 507–533 (1993).
- 75. Exponential decay rates for the solutions of Euler-Bernoulli equations with boundary dissipation occurring in the moments only, *Journal Differential Equations*, Vol. 95, No. 1, pp. 169–182, (1992).
- 76. Algebraic Riccati Equations arising from systems with unbounded input-solution operator: Applications to boundary control problems for wave and plate equations (with R. Triggiani), *Nonlinear Analysis: Theory Methods and Applications*, Vol. 20, No. 6, pp. 658–695 (1993).
- 77. Galerkin approximations of infinite-dimensional compensators for flexible structures with unbounded control actions, *Acta Applicandae Mathematica*, Vol. 28, pp. 101–133 (1992).
- 78. Global decay rates for the solutions to a von Karman plate without geometric conditions (with M. Bradley), Journal of Mathematical Analysis and Applications, Vol. 181, No. 1, pp. 254–276 (1994).
- 79. Continuous finite elements in space and time for the non-homogeneous wave equation (with L. Bales), Computers and Mathematics with Applications, Vol. 27, No. 3, pp. 91–102 (1994).
- 80. Sharp trace estimates of solutions to Kirchoff and Euler-Bernoulli equations (with R. Triggiani), Journal of Applied Mathematics and Optimization, Vol. 28, pp. 277–306 (1993).
- 81. Uniform convergence of the solutions to Riccati equations arising in boundary/point control problems, *Stochastic Theory and Adaptive Control*, LNCIS, Springer Verlag, pp. 285–306 (1992).
- 82. Asymptotic behavior with respect to thickness of boundary stabilizing feedback for the Kirchoff plate (with M. A. Horn), *Journal of Differential Equations*, Vol. 114, No. 2, pp. 396–433 (1994).
- 83. Nonlinear boundary stabilization of a von Karman plate equation, (with M. A. Horn), invited paper for Markus Festschrift, *Differential Equations and Dynamical Systems*, Vol. 152, pp. 581–605 (1993).
- 84. Abstract differential equations and nonlinear dispersive systems (with A. Favini, H. Tanabe), Differential and Integral Equations, Vol. 6, No. 5, pp. 995–1008 (1993).
- 85. Wellposedness and regularity of second order abstract equations arising in hyperbolic-like problems with non-linear boundary conditions (with A. Favini), Osaka Journal of Mathematics, Vol. 32, pp. 721–752 (1996).
- 86. Finite dimensionality of attractors associated with von Karman plate equations and boundary damping, *Journal of Differential Equations*, Vol. 117, No. 5, pp. 337–389 (1995).
- 87. Existence and uniqueness of the solutions to second order abstract equations with nonlinear and nonmonotone boundary conditions, *Nonlinear Analysis*, Vol. 23, No. 6, pp. 797–823 (1994).
- 88. Global stabilization of a dynamic von Karman plate with nonlinear boundary feedback (with M. A. Horn), *Applied Mathematics and Optimization*, Vol. 31, pp. 57–84 (1995).

- 89. Regularizations and approximations of Algebraic Riccati Equations arising in hyperbolic dynamics (with E. Hendrickson), Computational Optimization and Applications, Vol. 2, pp. 343–390 (1993).
- 90. Finite element approximations of compensator design for analytic generators with fully unbounded controls/observations, SIAM Journal on Control, Vol. 33, No. 1, pp. 67–88 (1995).
- 91. A robustness result for a von Karman plate (with B. Bradley), Kybernetica, Vol. 29, No. 3, pp. 291–304 (1993).
- 92. Uniform decay of weak solutions to a von Karman plate with nonlinear boundary dissipation (with M. A. Horn), invited paper dedicated to the memory of P. Hess, *Differential and Integral Equations*, Vol. 7, No. 4, pp. 885–908 (1994).
- 93. Input dynamics and nonstandard Riccati Equations (with D. Lukes, L. Pandolfi), *Journal of Optimization*, *Theory and Applications*, Vol. 84, No. 3, pp. 549–574 (1995).
- 94. Compact attractors for von Karman equations with nonlinear damping, *Proceedings of Dynamical Systems and Applications*, Vol. 4, No. 1, pp. 5–18 (1994).
- 95. A feedback synthesis of boundary control for a plate equation with structural damping (with D. Lukes, L. Pandolfi), Applied Mathematics and Computer Science, Vol. 4, No. 1, 5–18 (1994).
- 96. Global existence, uniqueness and regularity of solutions to a von Karman System with nonlinear boundary dissipation, (with A. Favini, M. A. Horn, D. Tataru), *Integral and Differential Equations*, Vol. 9, No. 2, pp. 267–294 (1996).
- 97. Local and global compact attractors arising in nonlinear elasticity—Case of noncompact nonlinearity and non-linear dissipation, *Journal of Mathematical Analysis and Applications*, Vol. 196, pp. 332–360 (1995).
- 98. Asymptomatic behavior of solutions in nonlinear dynamic elasticity (with W. Heyman), Discrete and Continuous Dynamic Systems, Vol. 1, No. 2, pp. 237–252 (1995).
- 99. Finite dimensional attractors to von Karman plate model, *Journal of Mathematical Systems*, *Estimation and Control*, Vol. 7, No. 3, pp. 251–275 (1997).
- 100. Uniform stabilization of spherical shells by boundary dissipation (with R. Triggiani and V. Valente), Advances in Differential Equations, Vol. 1, No. 4, pp. 635–674 (1996).
- 101. Abstract model and semigroup wellposedness of spherical shells (with R. Triggiani), invited paper for *Dynamical Systems and Applications*, Vol. 4, pp. 453–471 (1995).
- Nonlinear boundary stabilization of parallely connected Kirchhof plates (with M. A. Horn), Dynamics and Control, Vol. 6, pp. 263–292 (1996).
- 103. Finite dimensional approximations of boundary control problems arising in partially observed hyperbolic systems (with E. Hendrickson), invited paper *Dynamics of Continous*, *Discrete and Impulsive Systems*, Vol. 1, pp. 101–142 (1995).
- 104. Finite dimensional attractors for von Karman systems with nonlinear dissipation and noncompact nonlinearity, invited paper for Advances in Nonlinear Dynamics, IPD, Chapter 33, pp. 307–317 (1997).
- 105. Strong stability of semigroup arising from a coupled hyperbolic/parabolic system (with A. Avalos), Semigroup Forum, Vol. 57, pp. 278–292 (1998).
- 106. Uniform boundary stabilization of a nonlinear shallow and thin spherical cap (with W. Valente), Journal of Mathematical Analysis and Applications, Vol. 202, pp. 951–994 (1996).
- 107. A differential Riccati equation for the active control of a problem in structural acoustics (with A. Avalos), JOTA, Vol. 91, No. 3, pp. 695–728 (1996).

- 108. Convergence of numerical algorithms for the approximations of Riccati equations arising in smart material acoustic structure interactions (with E. Hendrickson), *Computational Optimization and Applications*, Vol. 8, No. 1, pp. 73–100 (1997).
- 109. Carleman estimates and uniqueness for the system of strongly coupled PDE's of spherical shells (with R. Triggiani), ZAMM, Applied Math. Mech., Vol. 76, pp. 277–281 (1996).
- 110. Abstract model and semigroup well-posedness of spherical shells with boundary dissipation (with R. Triggiani), Dynamical Systems and Applications, WSSIAA-World Scientific Series in Applicable Analysis, Vol. 4, pp. 453–471 (1996).
- 111. A singular control approach to highly damped second order abstract equations and applications (with L. Pandolfi and R. Triggiani), Applied Mathematics and Optimization, Vol. 36, pp. 67–107 (1997).
- 112. Exponential stability of thermoelastic system with free boundary conditions without mechanical dissipation (with G. Avalos), SIAM Journal on Mathematical Analysis, Vol. 29, No. 1, pp. 155–182 (1998).
- 113. Exponential stability of thermoelastic system without mechanical dissipation (with G. Avalos), invited paper honoring P. Grisvard, *Rendiconti Istit. Mat. Univ. Trieste*, Vol. XXVIII, pp. 1–28 (1997).
- 114. Uniform decay rates of solutions to a structural acoustic model with nonlinear dissipation (with G. Avalos), Applied Mathematics and Computer Science, Vol. 8, No. 2, pp. 101–127 (1998).
- 115. Uniform stabilization of a full von Karman system with nonlinear boundary feedback, SIAM J. on Control, Vol. 36, No. 4, pp. 1376–1422 (1998).
- 116. Weak, classical and intermediate solutions to a system of nonlinear elasticity, *Applicable Analysis*, Vol. 68, pp. 121–145 (1998).
- 117. Uniform decay for solutions to nonlinear shells with nonlinear dissipation (with R. Marchand), *Nonlinear Analysis*, Vol. 30, No. 8, pp. 5409–5418 (1997).
- 118. Asymptotic behavior of solutions to nonlinear shells in a supersonic flow (with W. Heyman), Numerical Functional Analysis and Optimization, Vol. 20, No. 3–4, pp. 279–300 (1999).
- 119. Controllability and stabilization of the second order hyperbolic problems with nonconstant coefficients (with R. Triggiani and P. Yao), *Nonlinear Analysis, Theory, Methods and Applications*, Vol. 30, No. 1, pp. 111–122 (1997).
- 120. Riccati equations arising in acoustic structure interactions with curved walls (with R. Marchand), *Dynamics and Control*, Vol. 8, pp. 269–292 (1998).
- 121. Exact boundary controllability of nonlinear shallow spherical shell (with M. E. Bradley), *Mathematical Models* and *Methods in Applied Sciences*, Vol. 8, No. 6, pp. 927–955 (1998).
- 122. Exact null controllability of structurally damped and thermoelastic parabolic models (with R. Triggiani), invited paper for *National Academy of Lincei -Section Mathematics*, Vol. 9, No. 9, pp. 43–69 (1998).
- 123. Two direct proofs on the analyticity of the s.c. semigroup arising in abstract thermoelastic equations (with R. Triggiani), Advances in Differential Equations, Vol. 3, No. 3, pp. 387–416 (1998).
- 124. Partially observed analytic systems with fully unbounded actuators and sensors (with G. Ji), Computational Optimization and Applications, Vol. 11, pp. 111–134 (1998).
- 125. Mathematical control theory in structural acoustic problems, invited paper based on Baretts Lectures, *Mathematical Models and Methods in Applied Sciences*, Vol. 8, No. 7, pp. 1119–1153 (1998).
- 126. Analyticity, and lack thereof, of thermoelastic semigroups (with R. Triggiani), ESAIM-European Series in Applied and Industrial Mathematics, Vol. 4, pp. 199–222 (1998).

- 127. Lack of time-delay robustness for dynamic stabilization of structural acoustic model (with G. Avalos and R. Rebarber), SIAM Journal on Control, Vol. 37, No. 5, pp. 1394–1418 (1999).
- 128. Structural decomposition of thermoelastic semigroups with rotational forces (with R. Triggiani), Semigroup Forum, Vol. 60.1, pp. 16–66 (2000).
- 129. Boundary stabilization of a 3-dimensional structural acoustic model, *Journal de Mathematiques Pure et Applique*, Vol. 78, pp. 203–232 (1999).
- 130. Analyticity of semigroups arising in thermoelastic systems with coupled boundary conditions (with R. Triggiani), Abstract and Applied Analysis, Vol. 3, No. 1–2, pp. 153–169 (1998).
- 131. Analyticity of thermo-elastic semigroups with free boundary conditions (with R. Triggiani), Annali di Scuola Normale Superiore, Vol. XXVII, pp. 457–482 (1998).
- 132. Uniform decay rates for a full von Karman system of dynamic thermoelasticity with free boundary conditions and partial dissipation, *Communications on PDE's*, Vol. 24, No. 9–10, pp. 1801–1849 (1999).
- 133. Nonlinear boundary feedback stabilization for a semilinear Kirchhoff plate with dissipation acting only via moments-limiting behaviour (with G. Ji), *Journal of Mathematical Analysis and Applications*, Vol. 229, pp. 452–479 (1999).
- 134. Finite dimensionality and compactness of attractors for von Karman equations with nonlinear dissipation, Nonlinear Differential Equations and Applications (NODEA), Vol. 6, pp. 437–472 (1999).
- 135. Boundary controllability of thermoelastic plates via the free boundary conditions (with G. Avalos), SIAM Journal on Control, Vol. 38, pp. 337–383 (2000).
- 136. Optimal error estimates for FEM approximations of dynamic nonlinear shells (with R. Marchand), Mathematical Modeling and Numerical Analysis -M2AN, Vol. 34, No. 1, pp. 63–84 (2000).
- 137. Inverse observability estimates for second order hyperbolic equations with variable coefficients (with R. Triggiani and P. F. Yao), Journal of Mathematical Analysis and Applications, Vol. 225, pp. 13–57 (1999).
- 138. Exponential decay rates for a full von Karman system of dynamic thermoelasticity (with A. Baddabadellah), Journal of Differential Equations, Vol. 160, pp. 51–93 (2000).
- 139. Global solvability and uniform decay rates of solutions to quasilinear equations with nonlinear boundary dissipation (with J. Ong), Communications in Partial Differential Equations, Vol. 24, No. 11–12, pp. 2069–2109 (1999).
- 140. Sharp regularity theory for elastic and thermoelastic Kirchoff equations with free boundary conditions (with R. Triggiani), *Rocky Mountain Journal of Mathematics*, Vol. 20, pp. 981–1024 (2000).
- 141. A sharp trace result on a thermo-elastic plate equation with coupled hinged/Neumann boundary conditions (with R. Triggiani), Continuous and Discrete Dynamical Systems, Vol. 5, No. 3, pp. 585–598 (1999).
- 142. Analyticity, hyperbolicity and uniform stability of semigroups arising in models of composite beams (with S. Hansen), *Mathematical Models and Methods in Applied Sciences*, Vol. 10, No. 4, pp. 555–580 (2000).
- 143. Finite element compensators for thermoelastic systems with boundary controls and point observations (with S. K. Chang and R. Triggiani), *Numerical Functional Analysis*, Vol. 20, No. 5(6), pp. 419–435 (1999).
- 144. Extended algebraic Riccati equations in the abstract hyperbolic case (with V. Barbu and R. Triggiani), Non-linear Analysis, Vol. 40, pp. 105–129 (2000).
- 145. Boundary stabilizability of nonlinear structural acoustic models with thermal effects on the interface (with C. Lebiedzik), C. R. Acad. Science de Paris, Vol. 328, No. 2, 187–192 (2000).

- 146. Exponential decay rates for full von Karman thermoelastic system with nonlinear thermal coupling (with A. Benabdallah), European Society Applied and Industrial Mathematics (ESAIM); Control, Optimization and Calculus of Variations (COCV), Vol. 8, pp. 13–38 (2000).
- 147. Uniform stabilization of the quasi-linear Kirchhoff wave equation with a nonlinear boundary feedback- invited paper in honor of J. Gutenbaum *Control and Cybernetics*, Vol. 29, No. 1, pp. 171–197 (2000).
- 148. Uniform stability in structural acoustic systems with thermal effects and nonlinear boundary conditions (with C. Lebiedzik), invited paper for special volume *Control and Cybernetics*, Vol. 28, No. 3, pp. 557–581 (1999).
- 149. Backward uniqueness for thermoelastic plates with rotational forces (with M. Renardy and R. Triggiani), Semi-group Forum, Vol. 62, pp. 217–242 (2001).
- 150. Optimization problems for structural acoustic models with thermoelasticity and smart materials, *Discussiones Mathematicae-Differential Inclusions*, Vol. 20, pp. 113–140 (2000).
- 151. Wellposedness of a structural acoustic control model with point observation of the pressure (with G. Avalos and R. Rebarber), *Journal Differential Equations*, Vol. 173, pp. 40–78 (2001).
- 152. Uniform decay properties of a model in structural acoustic (with G. Avalos and R. Rebarber), Journal de Mathematiques Pure et Appliques, Vol. 79, No. 10, pp. 1057–1072 (2000).
- 153. Exact-approximate boundary reachability for thermoelastic plates under variable thermal coupling (with G. Avalos), *Inverse Problems*, Vol. 16, pp. 479–996 (2000).
- 154. Decay rates of interactive hyperbolic parabolic PDE models with thermal effects on the interface (with C. Lebiedzik), *Journal of Applied Mathematics and Optimization*, Vol. 42, pp. 127–167 (2000).
- 155. Nonconservative wave equation with unobserved Neumann B.C. Global uniqueness and observability in one shot. (with R. Triggiani and X. Zhang), *Differential Geometric Methods in the Control of Partial Differential Equations*, Contemporary Mathematics, AMS, pp. 227–327 (2000).
- 156. Simultaneous exact controllability of thermoelastic plates with variable thermal coefficients and clamped/Dirichlet boundary controls (with M. Eller and R. Triggiani), *Discrete and Continuous Dynamical Systems*, Vol. 7, No. 2, pp. 283–302 (2001).
- 157. Asymptotic behaviour of nonlinear structural acoustic interactions with thermal effects on the interface (with C. Lebiedzik), *Nonlinear Analysis*, Vol. 49, No. 5, pp. 703–736 (2002).
- 158. Simultaneous exact-approximate boundary controllability of thermo-elastic plates with variable thermal coefficients and moment control (with M. Eller and R. Triggiani), *Journal Mathematical Analysis and Applications*, Vol. 251, pp. 452–478 (2000).
- 159. Unique continuation result for thermoelastic plates (with M. Eller and R. Triggiani), *Inverse and Ill Posed Problems*, Vol. 9, No. 2, pp. 109–148 (2001).
- 160. Factor spaces and implications on Kirchhoff equations with clamped boundary conditions (with R. Triggiani), Abstract and Applied Analysis, Vol. 6, No. 8 pp. 441–488 (2001).
- 161. Singular estimates and uniform stability of coupled systems of hyperbolic/parabolic PDE's (with F. Bucci and R. Triggiani), Abstract and Applied Analysis, Vol. 7, pp. 169–237 (2002).
- 162. Uniform stabilization of a shallow shell model with nonlinear boundary feedback (with R. Triggiani), *Journal Mathematical Analysis Applications*, Vol. 269, pp. 642–688 (2002).
- 163. Hadamard wellposedness of weak solutions in nonlinear dynamic elasticity-full von Karman systems (with H. Koch), Evolution Equations, Semigroups and Functional Analysis, Volume 50 in Progress in Nonlinear Differential Equations, Birkhäuser, pp. 197–217 (2002).

- 164. Optimal regularity of elastic and thermoelastic Kirchhoff plates with clamped boundary control (with R. Triggiani), Proceedings of Oberwolfach Conference Optimal Control of Complex Structures, June 2000 ISNM Birkhäuser, Vol. 139, pp. 171–182 (2001).
- 165. On the attractor for a semilinear wave equation with critical exponent and nonlinear boundary dissipation (with I. Chueshov and M. Eller), *Communications on Partial Differential Equations*, Vol. 27, pp. 1901–1951 (2002).
- 166. Optimal control and differential Riccati equations under singular estimates for  $e^{At}B$  in the absence of analyticity (with R. Triggiani), Advances in Dynamics and Control, CRC Press, pp. 271–301 (2004).
- 167. Exact boundary controllability of a hybrid PDE system arising in structural acoustic modeling (with G. Avalos), *Advances in Dynamics and Control*, CRC Press, pp. 155–175 (2004).
- 168. Finite dimensionality and regularity of attractors for a 2-d semilinear wave equation with nonlinear dissipation (with A. Ruzmaikina), Journal Mathematical Analysis and Applications, Vol. 270, pp. 16–50 (2002).
- 169. Strong stability of elastic control systems with dissipative saturating feedback (with T. Seidman), Systems and Control Letters, special volume dedicated to memory of J. L. Lions, Vol. 48, pp. 243–352 (2003).
- 170. Sharp regularity of the second time derivative  $w_{tt}$  to solutions of Kirchhoff equations with clamped boundary conditions (with R. Triggiani), Applied Mathematics and Computer Science, Vol. 11, pp. 753–773 (2001).
- 171. The dynamical Lame system: regularity of solutions, boundary controllability and boundary continuation data (with M. Belishev), *ESAIM*: Calculus of Variations Special Volume dedicated to memeory of J. L. Lions, Vol. 8, pp. 143–167 (2002).
- 172. Uniform stability in structural acoustic models with flexible curved walls (with J. Cagnol, C. Lebiedzik, J. P. Zolesio), *Journal Differential Equations*, Vol. 186, pp. 88–121 (2002).
- 173. Exponential decay rates for structural acoustic model with an overdamping at the interface and boundary layer dissipation (with F. Bucci), *Applicable Analysis*, Vol. 7, pp. 169-237, 2002.
- 174. Inertial manifolds for Von Karman evolutions, (with I. Chueshov), *Applied Mathematics and Optimization*, special volume dedicated to J. L. Lions, Vol. 46, pp. 179–206 (2002).
- 175. Exact controllability of structural acoustic interactions (with G. Avalos), Journal de Mathematiques Pure et Applique, Vol. 82, pp. 1047–1073 (2003).
- 176. Carleman estimates for a plate equation on a Riemann manifold with energy level terms (joint with R. Triggiani and P. F. Yao), Chapter 15, Analysis and Applications, Kluwer, pp. 199–237 (2003).
- 177. The case of differential geometry in the control of single and coupled PDE's (joint with B. Gulliver, W. Littman, and R. Triggiani), IMA volume *Geometric Methods in Inverse Problems and Control*, Springer Verlag, pp. 73–181 (2003).
- 178. Determining functionals for a class of second order in time evolution equations with applications to von Karman equations (with I. Chueshov), *Analysis and Optimization of Differential Systems*, Kluwer Academic Press, pp. 109–123 (2003).
- 179. Wellposedness of optimal control problems for systems with unbounded controls and partially analytic generators, Control and Cybernetics, Vol. 31, No. 3, pp. 751–777 (2002).
- 180. Optimal blowup rates for the minimal energy null control of the strongly damped abstract wave equation (with G. Avalos), *Annali di Scuola Normale*, Ser. V, Vol. II, pp. 601–616 (2003).
- 181.  $L_2$  regularity of the boundary  $\rightarrow$  boundary operator  $B^*L$  for hyperbolic and Petrowski PDE's. (with R. Triggiani). Abstract and Applied Analysis, No. 19, pp. 1061-1139 (2003).

- 182. The operator  $B^*L$  for the wave equation with Dirichlet control. (with R. Triggiani), Abstract and Applied Analysis, Vol. 7, pp. 625–634 (2004).
- 183. Boundary controllability of a coupled wave/Kirchoff system (with G. Avalos and R. Rebarber), Systems and Control Letters, Vol. 50, pp. 331-341 (2003).
- 184. Global uniqueness, observability and stabilization of non-conservative Schrodinger equations via pointwise Carleman estimates -Part I H<sup>1</sup> estimates, (with R. Triggiani and X. Zhang), *Journal of Inverse and Ill Posed Problems*, Vol. 12, No. 1, pp. 1-81 (2004).
- 185. Global uniqueness, observability and stabilization of non-conservative Schrodin ger equations via pointwise Carleman estimates -Part II  $L_2$  estimates, (with R. Triggiani and X. Zhang), Journal of Inverse and Ill Posed Problems, Vol. 11, pp. 43-123 (2004).
- 186. Global attractors for von Karman evolutions with a nonlinear boundary dissipation, (with I. Chueshov), *Journal Differential Equations*, Vol. 198, pp. 196-229, 2004.
- 187. Mechanical and thermal null controllability of thermoelastic plates and singularity of the associated minimal energy function, (with G. Avalos), invited paper in honor of K. M alanowski *Control and Cybernetics*, Vol. 32, pp. 473-490, 2003.
- 188. Singular estimates and Riccati theory for thermoelastic plate models with boundary thermal control, (with F. Bucci) *Dynamics of Continuous, Discrete and Impulsive Systems*, Vol. 11, pp. 545–568 (2004).
- 189. The null controllability of thermoelastic plates and singularity of the associated minimal energy function (with G. Avalos), Journal of Mathematical Analysis and Applications, Vol. 294, pp. 34–62 (2004).
- 190. Attractors for second order evolutions with nonlinear damping (with I. Chueshov), *Journal of Dynamics and Differential Equations*, to appear in the special volume dedicated to Shui-Nee Chow (SNC volume), Vol. 16, pp. 469–515 (2004).
- 191. Asymptotic rates and blowup for the minimal energy function for the null controllability of thermoelastic plates: The free case (with G. Avalos), Control Theory of Partial Differential Equations, Lecture Notes in Pure and Applied Mathematics, Chapman and Hall, CRC, Vol. 242, pp. 1–29 (2005). Lecture Notes in Pure and Applied Mathematics, Marcel Dekker.
- 192. Attractors and their structure for semilinear wave equations with nonlinear boundary dissipation (with I. Chueshov and M. Eller), invited paper for *Bulletin de Socieda Paramanese de Matematica*, Vol. 22, No. 1, pp. 38–57 (2004).
- 193. Carleman estimates at the  $H^1$  and  $L_2$  level for nonconservative Schrödinger equations with unobserved Neumann B.C. (with R. Triggiani and X. Zhang), Archives of Inequalities and Applications, Vol. 2, pp. 215–339 (2004).
- 194. Kolmogorov's entropy for a class of invariant sets and dimension of global attractors for second order equations with nonlinear damping (with I. Chueshov), Control Theory of Partial Differential Equations, Lecture Notes in Pure and Applied Mathematics, Chapman and Hall, CRC, Vol. 242, pp. 51–71 (2005).
- 195. Finite dimensionality of the attractor for a semilinear wave equation with nonlinear boundary dissipation (with I. Chueshov and M. Eller), Communications in Partial Differential Equations, Vol. 25, No. 11-12, pp. 1847–1876 (2004).
- 196. On nonlinear wave equations with degenerate damping and source terms (with V. Barbu and M. Rammaha), Transactions of American Mathematical Society, Vol. 357, pp. 2571–2611 (2005).
- 197. Global exact controllability of semilinear wave equations by a double compactness/uniqueness argument (with R. Triggiani), Discrete and Continuous Dynamical Systems, Vol. Supplement, pp. 556–566 (2005).
- 198. A trace regularity result for thermoelastic equations with applications to optimal boundary control (with P. Acquistapace and F. Bucci), Journal Mathematical Analysis and Applications, Vol. 310, pp. 262–277 (2005).

- 199. Tangential boundary stabilization of Navier Stokes equations in bounded domain (with V. Barbu and R. Triggiani), *Memoires of American Mathematical Society*, Vol. 181, pp. 1–125 (2006).
- 200. Exact controllability of finite energy states for an acoustic wave/plate interaction under the influence of boundary and localized controls (with G. Avalos), Advances in Differential Equations, Vol. 10, No. 8, pp. 901–930 (2005).
- 201. Existence and uniqueness of solutions to wave equations with nonlinear degenerate damping and source terms (with V. Barbu and M. Rammaha), *Control and Cybernetics*, special volume dedicated to C. Olech, Vol. 34, No. 3, pp. 665–689 (2005).
- 202. Optimal boundary control and Riccati theory for abstract dynamics motivated by hybrid systems of PDE's (with P. Acquistapace and F. Bucci), Advances in Differential Equations, Vol. 10, No. 12, pp. 1389–1436 (2005).
- 203. Abstract settings for tangential boundary stabilization of Navier-Stokes equations by high- and low-gain feedback controllers (with V. Barbu and R. Triggiani), *Nonlinear Analysis*, Vol. 64, pp. 2704–2747 (2006).
- 204. Sharp uniform decay rates at the  $L_2(\Omega)$ -level of the Schrodinger equation with nonlinear boundary dissipation (with R. Triggiani), Journal of Evolution Equations, Vol. 6, pp. 485–537 (2006).
- Long-time behavior of second-order evolution equations with nonlinear damping (with I. Chueshov), Memoires
  of American Mathematical Society , Vol. 912 (2008).
- 206. Existence, uniqueness of weak solutions and global attractors for a class of nonlinear 2D Kirchhoff-Boussinesq models (with I. Chueshov), Discrete and Continuous Dynamical Systems, Vol. 15, pp. 1–34 (2006).
- 207. Energy decay rates for semilinear wave equation with nonlinear localized damping and source terms (with D. Toundykov), *Nonlinear Analysis*, Vol. 64, pp. 1757–1797 (2006).
- 208. Long time dyanamics of von Karman semi-flow with nonlinear boundary interior damping (with I. Chueshov), *JDE*, Vol. 233, pp. 42–86 (2007).
- 209. Uniqueness and continuous dependence on the initial data for a class of non-linear shallow shell problems (with J. Cagnol, C. Lebiedzik, R. Marchand), C. R. Acad. Sci. Paris, Ser I, Vol. 342, No. 9, pp. 711–716 (2006).
- Blowup estimates for observability of thermoelastic systems (with T. Seidman), Asymptotic Analysis, Vol. 50, No. 1,2, pp. 93–120 (2006).
- 211. Global attractor to a composite system of nonlinear wave and plate equation, (with F. Bucci and I. Chueshov), Communications on Pure and Applied Analysis, Vol. 6, No. 1, pp. 113–140 (2007).
- 212. Local exponential stabilization strategies of the Navier Stokes equations, d=2,3 via feedback stabilization of its linearization (with V. Barbu and R. Triggiani), Proceedings of Oberwolfach Conference, Control of Coupled PDE's, Birkhäuser-Verlag, Vol. 155, pp. 13–47 (2007).
- 213. Global attractors for Mindlin-Timoshenko plates and for their Kirchhoff limits (with I. Chueshov), *Univ. of Milan J. of Mathematics*, Vol. 99, pp. 1–22 (2006) (invited paper).
- 214. Blow-up of generalized solutions to wave equations with nonlinear degenerate damping and source terms (with V. Barbu and M. Rammaha), *Indiana University Mathematics Journal*, Vol. 56, No. 3, pp. 995–1021 (2007).
- 215. Hadamard wellposedness for a class of nonlinear shallow shell problems (with J. Cagnol. C. Lebiedzik, and R. Marchand), *Nonlinear Analysis*, Vol. 67, No. 8, pp. 2452–2484 (2007).
- 216. Long time dynamics of semilinear wave equation with nonlinear damping and critical exponents (with I. Chueshov), AMS Contemporary Mathematics, Vol. 426, pp. 153–193 (2007).
- 217. Gevrey's and trace regularity of a semigroup associated with beam equation and non-monotone boundary conditions (with B. Belinskiy), *Journal Mathematical Analysis and Applications*, Vol. 332, pp. 137–154 (2007).

- 218. Riccati Equations for the Bolza Problem arising in boundary/point control problems governed by semigroups satisfying a singular estimate (with A. Tuffaha), *Journal of Optimization, Theory and Applications*, Vol. 136, pp. 229–246 (2008).
- 219. Wellposedness and optimal decay rates for wave equations with nonlinear boundary damping-source interaction (with M. Cavalcanti and V. Domingos), *Journal of Differential Equations*, Vol. 236, pp. 407–459 (2007).
- 220. Backward uniqueness in linear thermoelasticity with time and space variable coefficients (with H. Koch), Functional Analysis and Evolution Equations, Gunter Lumer Volume, Birkhauser, pp. 389–403 (2008).
- 221. Existence of the energy level weak solutions for a nonlinear fluid-structure interaction model (with V. Barbu, Z. Grujic, A. Tuffaha), AMS Contemporary Mathematics, Fluids and Waves, Recent Trends in Applied Analysis, Vol. 440, pp. 55–83 (2007).
- 222. Riccati equations arising in boundary control of fluid structure interactions (with A. Tuffaha), *Inter. J. Comput. Science and Math.*, invited paper for the inaugural issue, Vol. 1, No. 1, pp. 128–147 (2007).
- 223. Long term dynamics of semilinear wave equation with nonlinear localized interior damping and a source term of critical exponent (with I. Chueshov and D. Toundykov), Discrete and Continuous Dynamical Systems, Vol. 20, No. 3, pp. 459–509 (2008).
- 224. Smoothness of weak solutions to a nonlinear fluid-structure interaction model (with V. Barbu, Z. Grujic, and A. Tuffaha), *Indiana University Mathematics Journal*, Vol. 57, No 3, pp. 1173–1207 (2008).
- 225. Stability of higher-level energy norms of strong solutions to a wave equation with localized nonlinear damping and a nonlinear source term (with D. Toundykov), *Control and Cybernetics*, invited paper in honor of S. Rolewicz, Vol. 36, No. 3, pp. 681–711 (2007).
- 226. Attractors and long time behavior of von Karman thermoelastic plates, (with I. Chueshov), Applied Mathematics and Optimization, Vol. 58, No. 2, pp. 195–241 (October 2008).
- 227. Uniqueness of weak solutions for the semilinear wave equations with supercritical boundary/interior sources and damping (with L. Bociu), *Discrete and Cont. Dyn. Systems*, Vol. 22, No. 4, pp. 835–860 (2008).
- 228. Regularity of higher energies of wave equation with nonlinear localised damping and a nonlinear source (with D. Toundykov), *Nonlinear Analysis*, Vol. 69, pp. 898–910 (2008).
- 229. Uniform energy decay rates of hyperbolic equations with nonlinear boundary and interior dissipation (with R. Triggiani), invited paper for special issue C&C Control Journal of Polish Academy of Sciences, in honor of J. P. Zolesio, Vol. 37, No. 4, pp. 832–966 (2008).
- 230. Uniform energy decay for a wave equation with partially supported nonlinear boundary dissipation without growth restrictions (with M. Daoulatli and D. Toundykov), *Discrete and Continuous Dynamical Systems*, Vol. 2, No. 1, pp. 67–94 (2009).
- 231. Linear Hyperbolic and Petrowski type PDE's with continuous boundary control-boundary observation open loop map: Implication on nonlinear boundary stabilization with optimal decay rates (with R. Triggiani), invited paper in memory of L.S. Sobolev, Sobolev Spaces, Applications in Mathematical Physics, Springer Verlag, pp. 187–277 (2008).
- 232. Blow-up of weak solutions for the semilinear wave equations with nonlinear boundary and interior sources and damping (with L. Bociu), invited paper, *Applicationes Mathematicae*, Vol. 35, No. 3, pp. 281–304 (2008).
- 233. Higher regularity of a coupled-hyperbolic fluid-structure interactive system (with G. Avalos and R. Triggiani), Georgian Mathematical Journal, in honor of J. L. Lions, Vol. 15, No. 3, pp. 403–437 (2008).
- 234. Existence and exponential decay of solutions to a quasilinear thermoelastic plate system (with S. Maad and A. Sasane), Nonlinear Differential Equations (NODEA), Vol. 15, pp. 689–715 (2008).

- 235. Exact controllability of a 3D piezoelectric body (with B. Miara), C.R. Acad. Sci. Paris, Ser. 1, Vol. 347, pp. 167–172 (2009).
- 236. Riccati theory and singular estimates for Bolza control problems arising in linearized fluid structure interactions (with A. Tuffaha), Systems and Control Letters, Vol. 58, pp. 499–509 (2009).
- 237. Optimal feedback synthesis for Bolza control problems arising in linearized fluid structure interaction (with A. Tuffaha), Birkhäuser-Verlag, *Oberwofach*, Vol. 158, pp. 171–190 (2009).
- 238. Global attractor for a wave equation with nonlinear localized boundary damping and a source terms of critical exponent (with I. Chueshov and D. Toundykov), Journal of Dynamics and Differential Equations, Vol. 21, pp. 269–314 (2009).
- 239. Global existence and exponential decay rates for the Westervelt equation (with B. Kaltenbacher), *Discrete and Continuous Dynamical Systems*, Vol. 2, No. 3, pp. 503–523 (2009).
- 240. Bolza optimal synthesis problem for singular estimate control systems (with A. Tuffaha), *Control and Cybernetics*, Special Issue: 50 years of Optimal Control Theory. Polish Academy of Sciences, 2009, v. 38, no. 4. pp 1430-1460.
- 241. Optimal boundary control with critical penalization for a PDE model of fluid-solid interactions (with F. Bucci), Calculus of Variations and PDE's, Vol 37, Issue 1, (2010), p. 217-235.
- 242. "Beyond lack of compactness and lack of stability of a coupled parabolic-hyperbolic fluid-structure system", (with G. Avalos, and R. Triggiani) *International Series of Numerical Mathematics*, Vol. 158, Birkhauser Verlag, Basel, Switzerlandi; œ(2009), pp. 1-33.
- 243. "Semigroup generation and "hidden" trace regularity of a dynamic plate with non-monotone boundary feedbacks", (with D. Toundykov), Communications in Mathematical Analysis, Invited paper in honor of Peter Lax, vol 8, Nr 1, pp 1-37, (2010).
- 244. "Strong Stability of Nonlinear Semigroups with Weak Dissipation and Non-Compact Resolvent -Applications to Structural Acoustics", (with Y. Lu), *Applicable Analysis*, vol 89, Nr 1, pp 87-107, 2010.
- 245. Regularity of boundary traces for a fluid-solid interaction model, (with F. Bucci), *Discrete and Continuous Dynamical Systems*, vol 4, number 3, pp 505-521, 2011.
- 246. The Fluid-Structure Interaction Model with Both Control and Disturbance at the Interface: A Game Theory Problem via an Abstract Approach, (with R. Triggiani and J. Zhang), invited paper for *Applicable Analysis*, vol 90, Nr 5-6, 961-999, 2011.
- 247. Local Hadamard Well-posedness for Nonlinear Wave Equations with Supercritical Sources and Damping, (with L. Bociu), *Journal Differential Equations*, vol 249, pp 654-683, 2010.
- 248. Wellposedness and exponential decay for the Wastervelt equation with inhomogenuous Dirichlet boundary data. (with B. Kaltenbacher and S. Veljovic). *Progress in Nonlinear Differential Equations and Their Applications*, Herbert Amann Festschrift. Springer Basel AG, vol 60, pp 357-387,2011
- 249. On Global attractor for 2D Kirchhoff-Boussinesq model with supercritical nonlinearity, (with I. Chueshov) , Communications in Partial Differential Equations, vol 36, pp 67-99, 2011
- 250. Asymptotic stability of finite energy in Navier Stokes elastic wave interaction. (with Y. Lu ) Semigroup Forum vol 82, pp 61-82, 2011
- 251. Sensitivity analysis of hyperbolic optimal control problems (with A. Kowalewski and J. Sokolowski), Computational Optimization and Applications. Vol 52, Nr 1, pp 147-181, 2012
- 252. Well-posedness of the Westervelt and the Kuznetsov equation with nonhomogeneous Neumann boundary conditions (with B.Kaltenbacher) *Discrete and Continuous Dynamical Systems*, Supplement 2011, pp 763-773, 2011.

- 253. Interface feedback control stabilization of a nonlinear fluid-structure interaction. (with Y. Lu). *Nonlinear Analysis*, vol 75, pp 1449-1460, 2012
- 254. Cell protrusions and the ters:a unified approach (with Klaus Ley and M. Pospieszalska ).  $Biophysical\ Journal$ , Vol 100, pp 1697-1707, 2011
- 255. Wave equation with damping affecting only a subset of static Wentzell boundary is uniformly stable (with M. Cavalcanti and D. Toundykov), *Transactions of AMS*, Vol 364, Nr 11, pp 5693-5713, 2012
- 256. Uniform decay rates for the energy of weakly damped defocusing semilinear Schrodinger equations with inhomogenuous Dirichlet boundary control. (with V. Kalantarov and T. Ozsari). Journal Differential Equations, Volume 251, Issue 7, 1841-1863, 2011
- 257. The unique continuation property of eigenfunctions to Stokes-Oseen operator is generic with respect to the coefficients. (with V. Barbu), *Nonlinear Analysis*, Vol 75, Nr 12, pp 4384-4397, 2012.
- 258. An analysis of nonhomogeneous Kuznetsov's equation: Local and global well-posedness; exponential decay-(with Barbara Kaltenbacher), *Mathematische Nachrichten*. 285, Nr 2-3, pp 295-321, 2012.
- 259. Well-posedness and exponential decay rates for the Moore Gibson Thompson equation arising in high intensity ultrasound. (with B. Kaltenbacher and R. Marchand) Control and Cybernetics, vol 40, Nr 4, pp 971-989, 2011.
- 260. Generation of a semigroup and hidden regularity in nonlinear subsonic flow-structure interactions with absorbing boundary conditions, (with I. Chueshov) *Journal of Abstract Differential Equations and Applications* (*JADEA*), vol 7, Nr 1, pp 1-27, 2011.
- 261. Generation of bounded semigroups in nonlinear subsonic flow-structure interactions with boundary dissipation. with J. Webster. *Mathematical Methods in the Applied Sciences*, vol 36, pp 1995-2010, 2013.
- 262. Geometrically constrained stabilization of wave equation with Wentzell boundary conditions. with M. Cavalcanti and D. Toundykov, *Applicable Analysis*. 91 (8), pp 1427-1452, 2012
- 263. Boundary Control and Hidden Trace Regularity of a Semigroup Associated with a Beam Equation and Non-Dissipative Boundary Conditions. with T. McDevitt and R. Marchand. *Dynamic Systems and Applications* .vol 21, pp 467-490, 2012.
- 264. Well-posedness and exponential decay of the energy in the nonlinear Jordan-Moore-Gibson-Thompson equation arising in high intensity ultrasound. (with B. Kaltenbacher and M. Pospieszalska). *Mathematical Models and Methods in Applied Sciences*, vol 22, Nr 11, 34 pages, 2012.
- 265. Stabilization of a fluid structure interaction with nonlinear damping (with Y. Lu) , Invited paper for the Special Issue dedicated to Prof. T. Kaczorek *Control and Cybernetics* , vol 42, No 1, (2013). pp 155-181
- 266. Maximal regularity and global existence of solutions to a quasilinear thermoelastic plate system (with M. Wilke) , *Discrete and Continuous Dynamical Systems*, Festchrift for J. Goldstein , vol 33, Nr 11/12, pp 5189-5202, 2013.
- 267. Well-posedness and long time behavior in nonlinear dissipative hyperbolic-like evolutions with critical exponents (with I. Chueshov), in *Applied Mathematics*, Vol. 6, HCDTE Lecture Notes. Part I. Nonlinear Hyperbolic PDEs, Dispersive and Transport Equations AIMS, 2013. http://aimsciences.org/books/am/AMVol6.html
- 268. Smooth attractors of finite dimension for von Karman evolutions with nonlinear frictional damping localized in a boundary layer (with P. Geredeli and J. Webster ) *Journal Differential Equations* vol 254, pp 1193-1229. 2013.
- 269. A theory of the infinite horizon LQ problem for composite systems of PDEs with boundary control (with P. Acquistapace and F. Buccl) SIAM J. Math. Analysis., Vol 45, Nr 3, pp 1825-1870, 2013.
- 270. Evolution Semigroups in Supersonic Flow-Plate Interactions (with I. Chueshov and J. Webster). *Journal Differential Equations*. vol 254, pp 1741-1773, 2013.

- 271. On well-posedness for a free boundary fluid-structure model. (with M. Ignatowa, I. Kukavica and A. Tuffaha). *Journal of Mathematical Physics*. Vol 53, 2012.
- 272. Note on intrinsic decay rates for abstract wave equations with memory (with S. Messaoudi amd M. Mustafa), Journal of Mathematical Physics, vol 54, 2013.
- 273. Asymptotic analysis and upper semicontinuity with respect to rotational inertia of attractors to von Karman plates with geometrically localized dissipation and critical nonlinearity. (with P. Geredeli) *Nonlinear Analysis*, vol 91, pp 72-92, 2013.
- 274. Flow-Plate Interactions: Well- posedness and Long-Time Behavior (with I. Chueshov and J. Webster) Discrete and Continuous Dynamical Systems, Vol 7, Nr 5, pp 925-965, 2014.
- 275. Intrinsic decay rate estimates for the wave equation with competing viscoelastic and frictional damping that is localized, (with M. Cavalcanti, Valeria Domingos-Cavalcanti, F. Nascimento), *Discrete and Continuous Dynamical Systems-B*, vol 19, Nr 7, pp 1987-2012, 2014.
- 276. Analyticity and Gevrey class regularity for a strongly damped wave equation with hyperbolic boundary conditions (with J. P. Graber) Semigroup Forum., vol 88, pp 333-365, 2014
- 277. Regularity and stability of a wave equation with strong damping and dynamic boundary conditions (with N. Fourrier) Evolution Equations and Control Theory, Vol 2, Nr 4, pp 631-667, 2013.
- 278. Mini-max game theory of elastic and visco-elastic fluid structure interaction. (with R. Triggiani and J. Zhang). The Open Applied Mathematics Journal, vol 7, pp 1-17, 2013.
- 279. Uniform decay rates for the energy of Timoshenko system with arbitrary speeds of propagation and localized nonlinear damping. (with M.Cavalcanti, V. Cavalcanti, F. Nascimento and J. Rodrigues), Z. Angew, Math. Phys ZAMP, nr 6, 1189-1206, 2014.
- 280. On wellposedness and small data global existence for an interface damped free boundary fluid-structure interaction model (with. M. Ignatova, I. Kukavica and A. Tuffaha) Nonlinearity ,vol 27, issue 3, pp 467-499, 2014
- 281. Nonlinear Plates Interacting with A Subsonic, Inviscid Flow via Kutta-Joukowski Interface Conditions (with J. Webster) -, Nonlinear Analysis: Real World Applications. vol 17, pp 171-191, 2014,
- 282. Attractors for Delayed, Non-Rotational von Karman Plates with Applications to Flow-Structure Interactions Without any Damping (with I. Chueshov and J. Webster) Communications on Partial Differential Equations, vol 39, nr 11, pp 1965-1997, 2014.
- 283. Eliminating flutter for clamped von Karman plates immersed in subsonic flows (with J. Webster), Communications on Pure and Applied Analysis, special volume dedicated to M. Vishik. Vol 13 (5), pp 1935-1969, 2014
- 284. Uniform Stabilization with Arbitrary Decay Rates of the Oseen Equation by finite dimensional tangential localized interior and boundary controls. (with R. Triggiani) Semigroup of Operators-Theory and Applications, vol 113, pp 125-154, Springer , 2015
- 285. Existence and Sharp Decay Rate Estimates for a von Karman System with Long Memory (with M. Cavalcanti, A. Delano and Xiaojun Wang) Nonlinear Analysis Series B: Real World Applications, Vol 22, pp 289-306, 2015.
- 286. Intrinsic decay rate estimates for semi linear abstract second order equations with memory (with X-J Wang) , New Prospects in Direct, Inverse and Control Problems for Evolution Equations, Springer, INDAM Series 10, pp 271-303, 2014
- 287. Stabilization to an equilibrium of the Navier-Stokes equations with tangential action of feedback controllers. (with R. Triggiani), Nonlinear Anal. 121 (2015), 424ï; æ446.

- 288. Moore-Gibson-Thompson equation with memory, part II. General decay of energy. (with Xiaojun Wang)., Journal of Differential Equations, 259, pp 7610-7635, 2015.
- Wellposedness and uniform stability for nonlinear Shrodinger equations with dynamic/Wentzell boundary conditions. With M. Cavalcanti, W. Correa and C. Leffler. *Indiana University Mathematics Journal*, vol 65, Nr 5, 2016.
- 290. Domain of Fractional Powers of Matrix-valued Operators: A general Approach, (with R. Triggiani), Operator Semigroups Meet Complex Analysis, Harmonic Analysis and Mathematical Physics, Birkhauser, vol 250, pop 297-311, (2015). Invited paper for a volume dedicated to C.Batty.
- 291. Von Karman plate in a gas flow: recent results and conjectures. With I. Chueshov, E. Dowell and J.Webster. *Applied Mathematics and Optimization*. vol 73, 475-500, (2016).
- 292. Heat-Wave interaction in 2-3 dimensions: optimal rational decay rate (with G. Avalos and R. Triggiani). Journal Mathematical Analysis and Applications- vol 437, pp 782-815,( 2016).
- 293. Moore-Gibson-Thompson equation with memory, part I: exponential decay of energy (with Xiaojun Wang). ZAMP -67, nr 2, 67-17, 23pp, (2016)
- 294. Heat-structure interaction with viscoelastic damping: analyticity with sharp analytic sector, exponential decay, fractional powers. (with R. Triggiani), *Communications on Pure and Applied Analysis*. Vol 15, Nr 5, pp 1515–1543, (2016).
- 295. Global attractors for a third order in time nonlinear dynamics. With A. Caixeta and V. Domingos Cavalcanti. Journal Differential Equations. 261, pp 113-147,(2016)
- 296. Mathematical Aeroelasticity: A survey. With I. Chueshov. E. Dowell and J. Webster. , *MESA*, vol 7, nr 1, pp 5-29, 2016.
- 297. Intrinsic decay rates for the energy of a nonlinear viscoelastic equation modeling the vibrations of thin rods with variable density, with M. Cavalcanti, V. Domingos Cavalcanti ANA (Advances in Nonlinear Analysis) ., 6(2) 121-145, 2017.
- 298. Feedback stabilization of a fluttering panel in an inviscid subsonic potential flow. With J. Webster, SIAM Journal Mathematical Analysis, Vol 48, Nr 5, pp 1848-1891, 2016.
- 299. The Moore-Gibson-Thompson equation with memory in critical case, With F. Dell'Oro and V. Pata . *Journal Differential Equations*, 261, nr 7, 4188-4222,2016. 2016.
- 300. Global solvability of Moore-Gibson-Thompson equation with memory arising in nonlinear acoustics, to appear special Volume dedicated to J. Pruss *Journal Evolution Equations*. 17, (2017), 411-441.
- 301. On long time behavior of Moore-Gibson-Thompson equation with molecular relaxation". with A. Caixeta and V. Domingos Cavalcanti .  $\it Evolution~Equations~and~Control~Theory$  , vol 5, Nr 4, pp 661-676, 2016.
- 302. Quasi-stability and Exponential Attractors for A Non-Gradient System—Applications to Piston-Theoretic Plates with Internal Damping". with S. Howell and J. Webster. *Evolution Equations and Control Theory*. vol 5, Nr 4, pp 567-603, 2016.
- 303. "Small data global existence for a fluid-structure model" by Ignatova, Mihaela; Kukavica, Igor; Lasiecka, Irena; Tuffaha, Amjad *Nonlinearity* vol 30, nr 2, 848-898, 2017.
- 304. The stochastic linear quadratic control problem with singular estimates [with H. Cavit, T. Levajkovic, A. Tuffaha], SIAM J. Control Optim. 55 (2017), no. 2, 595â-626.
- 305. Global solvability of Moore-Gibson-Thompson equation with memory arising in nonlinear acoustics. J. Evol. Equ. 17 (2017), no. 1, 411â-441.

- 306. Intrinsic decay rates for the energy of a nonlinear viscoelastic equation modeling the vibrations of thin rods with variable density. [with M. Cavalcanti, V. Domingos, C. Webler], Adv. Nonlinear Anal. 6 (2017), no. 2, 121-145.
- 307. Global existence and exponential stability for a nonlinear thermoelastic Kirchhoff Love plate ,with M. Poko-jovy, X. Wan . *Nonlinear Anal. Real World Appl.* 38 (2017), 184-221
- 308. Flow-plate interactions:wellposedness and long time behavior (with J. Webster), *Oberwolfach Seminars*, vol 48, pp 173-259, Birkhauser, Springer Nature, (2018).
- 309. Long time dynamics of vectorial von Karman system with nonlinear thermal effects and free boundary conditions, [with To Fu Ma and R Monteiro], *Discrete and Continuous Dynamical Systems*, series B. vol 23, Nr 3, pp. 1037-1072, (2018).
- 310. Boundary control of small solutions to fluid-structure interactions arising in coupling of elasticity with Navier Stokes equation under mixed boundary conditions. [with K.Szulc and A. Zochowski]. Nonlinear Analysis, Real World Applications, vol 44, pp 54-85, (2018)
- 311. Feedback control of the acoustic pressure in ultrasonic propagation, [with F. Bucci], *Optimization*, vol 68, nr 10, pp 1811-1854, (2019).
- 312. Global smooth attractors for dynamics of thermal shallow shells without vertical dissipation", [with R. Monteiro and Ma To Fu] *Transactions of AMS*, vol 371, nr 11, pp 8051-8096, (2019)
- 313. Long time behavior of quasilinear thermoelastic Kirchhoff Love plates , [with M. Pokojovy and X. Wan] Nonlinear Analysis, 186, pp 219-258, (2019).
- 314. Reducing Drag of the obstacle in the channel by boundary control:theory and numerics. [with K. Szulc and A. Zochowski]. 3rd IFAC Workshop on Control of Systems Governed by Partial Differential Equation, XI Workshop Control of Distributed Parameter Systems, Joint CPDE CDPS, Oaxaca, Mexico, 2019, vol 152, Nr 2, pp 168-173, (2019)
- 315. Uniform stabilization of Navier-Stokes equations in critical  $L_q$  based Sobolev-Besov spaces by finite dimensional interior localized feedback controls. (with B. Priyasad and R. Triggiani), Applied Mathematics and Optimization, On line: https://doi.org/10.1007/s00245-019-09607-9. vol 83, nr 3, pp 1765-1831,(2021.)
- 316. "Exponential decay of quasilinear Maxwell equations with interior conductivity", with M. Pokojovy and R. Schnaubelt, Nonlinear Differential Equations and Applications NoDEA. vol 26, nr 6, (2019).

  On line: https://doi.org/10.1007/s00030-019-0595-1
- 317. Minimizing drag in a moving boundary fluid-elasticity interaction (with L. Bociu, L. Castle and A. Tuffaha), Nonlinear Analysis, vol 197, (2020). https://doi.org/10.1016/j.na.2020.111837
- 318. A note on the Moore-Gibson-Thompson equation with memory type II; [with Filippo Dell'Oro and Vittorino Pata], Journal of Evolution Equations. vol 20, pp 1251-1268, (2020). On line: http://link.springer.com/article/10.1007/s0002 019-00554-0
- 319. Singular thermal relaxation limit for the Moore-Gibson -Thompson equation arising in propagation of acoustic waves. (with M. Bongarti and S. Charoenphon), Semigroup Operator Theory and Applications, SOTA, [In honor of Prof. Kisynski], Springer. Vol 235, p 147-182, 2020.
- 320. Uniform stabilization of Boussinesq systems in critical Lq -based Sobolev and Besov spaces by finite dimensional interior localized feedback controls [with B. Priyasad and R. Triggiani) DCDS B 25 (10), pp 4071-4117, 2020. doi: 10.3934/dcdsb.2020187
- 321. Vanishing relaxation time dynamics of the Jordan Moore Gibson Thompson equation arising in nonlinear acoustics, [with M.Bongarti and S. Charphoen], Journal of Evolution Equations, accepted.

- 322. Finite dimensional boundary uniform stabilization of the Boussinesqq system in Besov spaces by critical use of Carleman extimate-based inverse theory, [with B. Priyasad and R. Triggiani], *Journal Inverse Ill-Posed Problems*, https://doi.org/10.1515/jiip-2020,0132. (2021.)
- 323. "Long-time dynamics of an extensible hinged-free plate driven by a non-conservative force" [with D. Bonheur,F. Gazzola and J. Webster] -accepted Annales de l'Institut Henri Poincare / Analyse non lineaire ,(2021).
- 324. "Uniform stabilization of 3D Navier-Stokes equations in low regularity Besov spaces..." [with B.Priyasad and R. Triggiani] accepted for *Archives of Rational Mechanics and Analysis* [ARMA], 241,(2021),nr 3, 1575-1654.. (DOI) https://doi.org/10.1007/s00205-021-01677-w
- 325. Boundary stabilization of the linear MGT equation with feedback Neumann control, [with M. Bongarti] Special Volume dedicated to Z. Nashed. Deterministic and Stochastic Optimal Control and Inverse Problems, pp 150-169, 2021, CRC Press, Taylor and Francis, (2021).
- 326. Maximal  $L^p$ -regularity for an abstract evolution equation with applications to closed-loop boundary feedback control problems [with B. Priyasad and R. Triggiani], Journal Differential Equations, vol 294, pp 60-87, (2021).
- 327. Weak and strong semigroups in structural acoustic Kirchoff-Boussinesq interactions with boundary damping. [with J.Rodriguez] *Journal Differential Equations* 298, pp 387-429, (2021).
- 328. Stabilization of a nonlinear structural acoustic interaction, [with J. Rodriguez], 2021 ACC [American Control Conference] .May 26-28, 2021. ACC 2021, Nr 113.

## VIII(e) Refereed proceedings papers

- 1. Sur l'approximation du controle optimale des systems gouvernes par des equations differentielles avec retard par la methods des difference finies, *Proceedings of VII IFIP Conference on Optimization Techniques*, Nice, Lecture Notes, Springer Verlag (1975).
- 2. Necessary conditions of optimality for optimal control of systems with delay, Archiwum AiT, No. 4 (1973).
- 3. Estimations of the rate of convergence of approximations to constrained control problems for parabolic systems (with K. Malanowski), *Proceedings of the International Conference on Methods of Mathematical Programming*, Zakopane, Poland (1977).
- 4. Approximation of optimal solutions to state and control constrained optimal control problems for systems described by nonlinear differential equations with delay, *Proceedings of IFAC Conference on Infinite Dimensional Systems*, Control Theory Centre, University of Warwick, United Kingdom (1977).
- 5. The quadratic cost problem for boundary input hyperbolic equations:  $L_2$  theory, Control Theory for Distributed Parameter Systems and Applications, Lecture Notes in Control, Springer Verlag, New York, Vol. 54, pp. 138–153 (1983).
- 6. Approximations of analytic and differentiable semigroups: Rate of convergence with nonsmooth initial conditions in infinite dimensional systems, *Proceedings of the Conference on Operator Semigroups and Applications*, Lecture Notes in Mathematics, Springer Verlag, Vol. 1076, pp. 123–139 (1984).
- 7. Approximations of Riccati equations corresponding to hyperbolic boundary control problems, *Distributed Parameter Systems*, *Lecture Notes in Control and Information Sciences*, Springer Verlag, Vol. 75, pp. 228–245 (1985).
- 8. Sharp regularity results for mixed hyperbolic problems of second order, *Lecture Notes in Mathematics*, Differential Equations in Banach Spaces, Springer Verlag, Vol. 1223, pp. 160–176 (1986).
- 9. Strong stabilization of a nonlinear wave equation with dissipation on the boundary and related problems, invited paper, *Recent Advances in Communication and Control Theory* (R. E. Kalman, et al., eds.), Optimization Software, Inc., Publication Division, New York, pp. 194–213 (1987).

- 10. Finite element approximations of wave equation with Dirichlet boundary data defined on a bounded domain in  $\mathbb{R}^2$  (with P. Neittaanmaki and J. Sokolowski), Lecture Notes in Control and Information Sciences, Vol. 102, Distributed Parameter Systems (F. Kappel, et al., eds.), Springer Verlag, pp. 216–234 (1987).
- 11. Exponential local stability of first order strictly hyperbolic systems with nonlinear perturbations on the boundary, *Lecture Notes in Control and Information Sciences*, Vol. 100, Boundary Control and Boundary Variations (J. P. Zolesio, ed.), Springer Verlag, pp. 212–235 (1988).
- 12. Stability of wave equation with nonlinear damping in the Dirichlet and Neumann boundary conditions in control of partial differential equations (A. Bermudez, ed.), Lecture Notes in Control and Information Sciences, Springer Verlag, pp. 47–65 (1989).
- 13. Further results on exact controllability of the Euler-Bernoulili equation with controls in the Dirichlet and Neumann boundary conditions (with R. Triggiani), Lecture Notes in Control and Information Sciences, Springer Verlag, Vol. 147, pp. 226–235 (1990).
- 14. Asymptotic behavior of the solutions of the Kirkchoff plate with nonlinear dissipation in the bending moments and shear forces, *Lecture Notes in Control and Information Sciences*, Springer Verlag, Control of Boundaries (J. Simon, ed.), Vol. 125, pp. 168–176.
- 15. Controllability of a viscoelastic Kirkhoff plate, *International Series of Numerical Mathematics*, Birkhäuser, Vol. 91, pp. 237–248 (1989).
- 16. Exact controllability of a plate equation with one control acting as a bending moment, Lecture Notes in Pure and Applied Mathematics, Marcel Dekker, Vol. 127, pp. 345–363 (1990).
- 17. Uniform exponential energy decay of wave equations in a bounded region—without any geometric conditions (with R. Triggiani), Lecture Notes in Control Sciences, Springer Verlag, Vol. 147 (1990).
- 18. Finite dimensional approximations of Algebraic Riccati Equations arising in hyperbolic problems with boundary/point control, *Proceedings of NASA-UCLA Workshop on Computational Techniques in Identification and* Control of Flexible Flight Structures, Optimiz. Software, Inc., pp. 247–270 (1990).
- 19. Exponential stabilization of hyperbolic systems with nonlinear, unbounded perturbation—Riccati operator approach, *Springer Verlag Lecture Notes*, Vol. 154, pp. 102–116 (1991).
- 20. The Euler Bernoulli plate is exactly controllable via bending moments only (with M. A. Horn), Lectures in Control and Information Sciences, Springer Verlag, Vol. 149, pp. 129–143 (1991).
- 21. Algebraic Riccati Equations arising from systems with unbounded input–solution operator: Applications to boundary control problems for wave and plate equations (with R. Triggiani), Lecture Notes in Control and Information Sciences, Springer Verlag, Vol. 180 pp. 530–538 (1992).
- 22. Galerkin approximations of infinite-dimensional compensators for flexible structures with unbounded control actions, *Springer Verlag Lecture Notes LNCIS*, Vol. 178, pp. 253–272 (1992).
- 23. Uniform boundary stabilization of semilinear wave equation with nonlinear boundary damping (with D. Tataru), LNPA, Theory of Control (M. Joshi, A. V. Balakrishnan, eds.), Marcel Dekker, Vol. 142, pp. 233–254 (1992).
- 24. Global decay rates for the solutions to a von Karman plate without geometric conditions (with M. Bradley), *LNPA*, Marcel Dekker, Vol. 155, pp. 25–39 (1993).
- 25. Sharp trace estimates of solutions to Kirchoff and Euler-Bernoulli equations (with R. Triggiani), *LNPA*, Marcel Dekker, Vol. 148, pp. 141–181 (1993).
- 26. Uniform convergence of the solutions to Riccati equations arising in boundary/point control problems, *Stochastic Theory and Adaptive Control, LNCIS*, Springer Verlag, pp. 285–306 (1992).
- 27. Second-order abstract differential equations with nonlinear boundary conditions—Applications to von Karman system with boundary damping (with A. Favini), *LNPAM*, Marcel Dekker, Vol. 148, pp. 65–85 (1993).

- 28. Asymptotic behavior and finite dimensional attractors for solutions to a semilinear wave equation with a nonlinear damping, *Mathematical and Numerical Aspects of Wave Propagation*, SIAM, pp. 321–330 (1993).
- 29. Some aspects of the adaptive boundary control of stochastic linear hyperbolic systems (with T. E. Duncan, B. Pasik), *Proceedings of 32nd IEEE Conference on Decision and Control*, San Antonio, Dec. 15–17 (1993).
- 30. Asymptotic behavior and attractors of nonlinear von Karman plate equations with boundary dissipation, *Proceedings of IMA Volumes in Mathematics and its Applications*, Springer Verlag, Vol. 70, pp. 171–195 (1995).
- 31. Global stabilization of a von Karman plate (with M. E. Bradley), *Identification and Control in Systems Governed by PDE's* (H. T. Banks, R. H. Fabiano, K. Ito, eds.), *SIAM*, pp. 101–116 (1993).
- 32. Wellposedness and uniform decay rates for weak solutions to a von Karman system with nonlinear dissipative boundary conditions (with M. A. Horn, D. Tataru), *Optimal Control of Differential Equations, LNPAM*, Marcel Dekker, Vol. 160, pp. 133–159 (1994).
- 33. Asymptotic behavior and the existence of finite dimensional attractors for von Karman plate equations with Boundary Damping, *Boundary Control and Variations*, *LNPAM*, Marcel Dekker, Ch. 14, pp. 273–295 (1994).
- 34. Numerical approximations of solutions to Ricccati equations arising in boundary control problems for the wave equation (with E. Hendrickson), *Optimal Control of Differential Equations, LNPAM*, Marcel Dekker, Vol. 160, pp. 111–133 (1994).
- 35. Global existence and uniqueness of regular solutions to the dynamic von Karman system with nonlinear boundary dissipation (with M. A. Horn), *Proceedings of IFIP Conference on Control of Partial Differential Equations*, Marcel Dekker, Vol. 165, pp. 99–121 (1994).
- 36. Further regularity properties in quadratic cost problems for parabolic equations (with R. Triggiani), Optimal Control of Differential Equations, LNPAM, Marcel Dekker, Vol. 160, pp. 173–193 (1994).
- 37. Wellposedness of the second-order nonlinear abstract differential equations with multivalued boundary conditions, *Proceedings at the First World Congress of Nonlinear Analysis*, Walter de Gruyter, Berlin, pp. 2347–2370 (1996).
- 38. Uniform stabilizability of nonlinearly coupled Kirchhoff plate equations (with M. A. Horn), *International Series of Numerical Mathematics*, Birkhäuser, Vol. 118, pp. 189–210 (1994).
- 39. Maximal decay rates and asymptomatic behavior of solutions in nonlinear elastic structures (with W. Heyman), Optimal Design and Control, Birkhäuser, Vol. 19, pp. 229–241 (1995).
- 40. Stability of dynamics arising in structural acoustic problems, *Proceedings of MMAR 96 Conference*, Vol. 1, pp. 117–127 (1996).
- 41. Uniform stabilization of a shallow spherical shell (with R. Triggiani, V. Valente), Control of Partial Differential Equations, Marcel Dekker, Vol. 174, pp. 171–181 (1995).
- 42. A singular control approach to highly damped second-order abstract equations and applications (with L. Pandolfi, R. Triggiani), Control of Partial Differential Equations, Marcel Dekker, Vol. 174, pp. 157–171 (1995).
- 43. Boundary and point feedback control of models arising in smart structures (with G. Avalos), *Proceedings of 1995 SPIE North American Conference on Smart Structures and Materials*, p. 2442 (1995).
- 44. Boundary control problems for a dynamic Kirchhoff plate model with partial observations (with E. Hendrickson), Modelling and Optimization of Distributed Parameter Systems, Chapman and Hall, pp. 241–254 (1996).
- 45. Convergence of numerical algorithms in feedback control optimization for smart materials and structures (with G. Avalos and E. Hendrickson), *Proceedings of SPIE's 1996 Symposium on Smart Structures and Materials*, pp. 2715–2717 (1996).

- 46. Convergence rates for semidiscrete FEM approximations of dynamic nonlinear shallow shells (with R. Marchand), *Computational Science in 21 Century* (M. O. Bristeau, G. Etgen, W. Fitzgibbon, J. L. Lions, J. Periaux, and M. Wheeler, eds.), invited paper honoring R. Glowinski, John Wiley, pp. 558–567 (1997).
- 47. Control and stabilization of interactive structures, Systems and Control in the Twenty-First Century, Birkhäuser, pp. 245–263 (1997).
- 48. Carleman estimates and exact boundary controllability for a system of coupled, nonconservative second-order hyperbolic equations (with R. Triggiani), Partial Differential Equations Methods in Control Lecture Notes in Pure and Applied Analysis, Marcel Dekker, Vol. 188, pp. 215–245 (1997).
- 49. Control and stabilization in nonlinear structural acoustic problems (with R. Marchand), *Mathematics and Control in Smart Structures*, SPIE's, Vol. 3039, pp. 192–202 (1997).
- Nonlinear control problems and their approximations for thin shallow shells (with R. Marchand), Proceedings of the International Conference on Nonlinear Problems in Aviation and Aerospace, ICNPAA, Daytona Beach, FL, May 1996, pp. 397–405 (1997).
- 51. Von Karman system with nonlinear boundary dissipation, *Proceedings of the 4-th International Symposium MMAR*, pp. 63–71 (1997).
- 52. Uniform decays in nonlinear thermoelastic system (with G. Avalos), Optimal Control: Theory, Algorithms and Applications Kluwer Academic Publishers, Vol. 15, pp. 1–22 (1998).
- 53. Energy decay for semilinear plates with nonlinear boundary dissipation acting via moments only (with G. Ji), *Optimal Control: Theory, Algorithms and Applications*, Kluwer Academic Publishers, Vol. 15, pp. 224–246 (1998).
- 54. Feedback noise control in an acoustic chamber, Mathematical theory, invited review paper with R. Triggiani, Nonlinear Problems in Aviation and Aerospace, Stability and Control Theory, Gordon and Breach Science Publishers, Vol. 11, pp. 89–113 (2000).
- 55. Active noise control in an acoustic chamber: mathematical theory, invited paper based on plenary lecture, *Proceedings of the 5-th International Symposium MMAR*, pp. 13–23 (1998).
- 56. Exact boundary controllability of a first order, nonlinear hyperbolic equation with non-local integral terms arising in epidemic modeling (with R. Triggiani), *Direct and Inverse Problems in Mathematical Physics*, Kluwer Academic Publishers, ISAAC series, Vol. 5, pp. 363–399 (2000).
- 57. Uniform stabilization of von Karman system with nonlinear boundary feedback, invited SIAM paper, 37-th CDC IEEE Proceedings, Vol. 3, pp. 3479-3483 (1998).
- 58. Exact-approximate controllability of thermoelastic systems with free boundary conditions (with G. Avalos), Control of Distributed Parameter Systems, Kluwer Academic Press, pp. 3–13 (1999).
- 59. An observability estimate in  $L_2 \times H^{-1}$  for second order hyperbolic equations with variable coefficients (with R. Triggiani and P. Yao), Control of Distributed Parameter Systems, Kluwer Academic Press, pp. 71–79 (1999).
- 60. Uniform stability of nonlinear thermoelastic plates with free boundary conditions (with G. Avalos and R. Triggiani), *Proceedings of the Conference on Control of PDE's*, Chemnitz 1998, Birkhäuser, *Int. Series of Num. Analysis*, Birkhäuser, Vol. 135, pp. 1–32 (1999).
- 61. Finite dimensional observers and compensators for thermoelastic systems with boundary controls and point observations (invited paper with S. K. Chang and R. Triggiani), 38-th IEEE CDC Proceedings, Vol. 4 (1999).
- 62. Exact boundary controllability of thermoelastic plates with variable coefficients (with M. Eller and R. Triggiani), Semigroups of Operators: Theory and Applications, Progress in Nonlinear Differential Equations, Birkhäuser, Vol. 42, pp. 335–352 (2000).

- 63. Simultaneous exact/approximate boundary controllability of thermo-elastic plates with variable transmission coefficient (with M. Eller and R. Triggiani), *Shape Optimization and Optimal Design, LNPAM*, Marcel Dekker, Vol. 216, pp. 109–231 (2001).
- 64. Nonlinear boundary feedback stabilization of dynamic elasticity with thermal effects, *Shape Optimization and Optimal Design, LNPAM*, Marcel Dekker, Vol. 216, pp. 353–355 (2001).
- 65. Optimal control and Algebraic Riccati Equations under singular estimates for the semigroup in the absence of analyticity (with R. Triggiani), *Differential Equations and Control Theory*, *LNPAM*, Marcel Dekker, Vol. 225, pp. 193–219 (2001).
- 66. Riccati equations for thermoelastic plates with boundary controls (with F. Bucci), *Proceedings of DCDIS Conference*, Guelph, Canada, May 15–18 (2003).
- 67. Regularity of transfer function and uniform stability of boundary control systems (with R. Triggiani), invited paper for *Proceedings of MMAR Conference on Control* (2003).
- 68. Nonlinear wave equations with degenerate damping (with V. Barbu and M. Rammaha), *Lect. Notes Pure Appl. Math.*, Chapman and Hall/CRC, Vol. 240, pp. 53–62 (2007).
- 69. Differential Riccati equations for the Bolza probelm associated with unbounded control and singular estimate control system: Applications to boundary control of thermoelastic plates (with A. Tuffaha), *Proceedings of MMAR-11-th IEEE Conference Methods and Models in Automation and Robotics*, pp. 71–76 (2005).
- 70. Boundary control model of a nonlinear system of fluid structure interaction, (with V. Barbu, Z. Grujic, and A. Tuffaha), *IEEE-MMAR 2006 Proceedings*, pp. 91–95 (2006).
- 71. Local exponential stabilization startegies of the Navier Stokes Equations, via feedback stabilization of its linearization (with V. Barbu and R. Triggiani), *Proceedings of Oberwolfach Conference*, Birkhäuser-Verlag (2007), to appear.
- 72. Wellposedness and blow-up of solutions to wave equations with supercritical boundary sources and boundary damping (with L. Bociu), *Proceedings of the Conference on Differential and Difference Equations and Applications*, Hindawi Publ. Company, Melbourne, pp. 635-643 (2005).
- 73. Energy decay rates for the semilinear wave equation with nonlinear localized damping and source terms: An intrinsic approach (with D. Toundykov), Chapter 13 in *Free and Moving Boundaries: Analysis, Simulation and Control* (Roland Glowinski and Jean Paul Zolesio, eds.), Taylor and Francis, Vol. 252 (2006).
- 74. Differential Riccati equations for the Bolza problem associated with point boundary control of singular estimate control systems: Applications to boundary control of structural acoustic systems (with A. Tuffaha), Chapter 12 in Free and Moving Boundaries: Analysis, Simulation and Control (R. Glowinski and J. Paul Zolesio, eds.), CRC Taylor and Francis, Vol. 252 (2006).
- 75. Singular estimates and Riccati theory for fluid structure interaction models with boundary control (with A. Tuffaha), MMAR-IEEE Proceedings (September 2007).
- 76. Boundary feedback control in fluid-structure interactions (with A. Tuffaha), 47 IEEE Conference Proceedings on Decision and Control, Cancun, Mexico (December 9–11, 2008).
- 77. Long-time dynamics of von Karman evolutions with thermal effects (with I. Chueshov), *Boletin da Sociedade Paranese de Matematica*, Vol. 25, pp. 37-55 (2007). (Proceedings of the PDE Workshop, Maringa, Brazil, September 2007.)
- 78. Optimal Control theory for 3-dimensional fluid-structure interactions (with A. Tuffaha), *Proceedings of MTNS (Mathematical Theory of Systems and Networks)*, Fez, Morocco (May 2009).
- 79. Fluid-Structure Interaction Model: Wellposedness, Regularity and Control (with Viorel Barbu, Zoran Gruji'C, and Amjad Tuffaha.) In: Advances in Dynamics and Control: Theory Methods and Applications. Chapter 2, pp21-32. Cambridge Scientific Publishers, 2010.

- 80. Boundary Asymptotic Stabilizability of a Nonlinear Fluid Structure Interaction (with Y. Lu) , Proceedings 49th IEEE Conference on Decision and Control, pp 7057-7062, 2010
- 81. Long time dynamics and control of subsonic flow-structure interaction. Proceedings of American Control Conference (ACC), Montreal, CA, June 27-29, 2012.
- 82. Controlling flutter in nonlinear panels in subsonic flows via structural velocity feedback. (with J. Webster) *Proceedings CDC- IEEE*, December, Los Angeles, 2014.
- 83. Stabilization of a nonlinear structural acoustic interaction, [with J. Rodriguez], 2021 ACC [American Control Conference] .May 26-28, 2021. ACC 2021, Nr 113.

## IX PROFESSIONAL ACTIVITIES

## IX(a) Editorships

#### **Editor** in Chief

 Applied Mathematics and Optimization [AMO], Publisher Springer Verlag, EIC with Paul Dupuis and Roger Temam, - 2013-2015 and with Huyen Pham and Roger Temam-2015- present.
 2018 Impact Factor: 1.895

http://www.springer.com/mathematics/journal/245

• Evolution Equations and Control Theory, [EECT], Publisher Aims, EIC with Alain Haraux, 2012 -present. 2018 Impact Factor: 1.048.

https://aimsciences.org/journals/home.jsp?journalID=25

#### **Editorial Boards**

- 1. SIAM Journal on Control and Optimization, 1982–1994
- 2. Applied Mathematics and Optimization, Springer Verlag, 1984-2013. Editor in Chief -EIC [with P. Dupuis and R. Temam] 2013
- 3. International Journal of Mathematics and Mathematical Sciences, (Hindawi) since 1985
- 4. Computational Optimization and Applications (Springer), since 1991
- 5. Archives of Control Sciences (DeGruyter), since 1992
- 6. Applied Mathematics and Computer Science, 1992 -2009
- 7. Discrete and Continuous Dynamic Systems, AIMS, since 1994
- 8. Dynamics of Continuous, Discrete and Impulsive Systems, Univ. of Waterloo, since 1994
- 9. Abstract and Applied Analysis, Hindawi, since 1995
- 10. Transactions on Automatic Control, IEEE, Associate Editor, 1993-2001, and Editor at Large, 2001–2010
- 11. Journal Mathematical Analysis and Applications, Elsevier, 1998–2008
- 12. Systems and Control Letters, Elsevier, 1998 -2011
- 13. Automatica, Elsevier, 2000–2005
- 14. Nonlinear Analysis, Elsevier, since 2001
- 15. Applicable Analysis, Taylor and Francis, since 2002
- 16. Nonlinear Studies, IFNA, 2002-2008.

- 17. Control and Cybernetics, Polish Academy of Sciences, since 2005
- 18. International Journal of Comput. Sciences and Mathematics, 2006 -2010
- 19. The Open Applied Mathematics Journal, De Gruter, since 2007
- 20. Set Valued and Variational Analysis, Springer Verlag, 2008 -2013
- 21. Applicationae Mathematicae, Funded by H. Steinhaus, Polish Academy of Sciences, since 2008.
- 22. Communications in Mathematical Analysis, Math-Res.-Publishers, Coordinating Area Editor, 2010-2014
- 23. Journal Of Optimization Theory and Applications (JOTA), Springer Verlag, since 2012.
- 24. Central European Journal of Mathematics, On the Advisory Board , De Gruyter, since 2014
- 25. Editor, Conference Proceedings Series, Computational Techniques in Distributed Systems, IFIP WG7.2, Springer Verlag, 1987–1992
- 26. Editorial Board of Book Series: Modern Mechanics and Mathematics, Springer Verlag, since 2006
- 27. Advances in Nonlinear Analysis, De Gruyter, since 2013.
- 28. Pure and Applied Functional Analysis, Yokohama Publishers, since 2015. http://www.ybook.co.jp/pafa.html
- 29. Editor in Chief (with A. Haraux and E. Zuazua): Journal of Abstract Differential Equations (JADEA), (Math-Res-Publishers) since 2010.
- 30. Editorial Advisory Board, De Gruyter-Versita. Since 2010.
- 31. Guest editor for several volumes: recently: in memory of A. Balakrishnan AMO,
- 32. 70 Birthday of Viorel Barbu Pure and Applied Functional Analysis,
- 33. In memory of I. Chueshov DCDS B.

#### IX(b) Offices and functions held

1. IFIP, the International Federation for Information Processing, with headquarters based in Laxenburg, Austria (previously Geneva, Switzerland). URL: http://www.ifip.org About IFIP. IFIP, the International Federation for Information Processing, is the global professional federation of societies and associations for people working in Information and Communications Technologies and Sciences. Established under the auspices of UNESCO in 1960 and recognised by the United Nations, IFIP represents ICT professional associations from more than 50 countries and regions with a total membership of over half a million. It also brings together more than 3,500 scientists from industry and academia, organising them into over 100 Working Groups and 13 Technical Committees to conduct research, develop standards and promote information sharing. Based in Austria, IFIP organises and supports over 100 conferences each year, fostering the distribution of research and knowledge to academics and industry practitioners alike.

IFIP was founded in 1960 as the very first major international federation of the main computer societies under the auspices of UNESCO. Today IFIP has 52 organizations as full members representing research activities in the area of information technology and computing worldwide. It is organized into 13 technical committees (TC) representing various areas of activities. A General Assembly (GA) of all its members and TC chairs have overall responsibility for all of IFIP's strategies.

IFIP's Mission Statement: to be the leading, truly international organization which encourages and assists in the development, exploitation and application of Information Technology. IFIP's Aims: to foster international cooperation, to stimulate research, development and applications, and to encourage education and the dissemination and exchange of information in all aspects of computing and communication.

Since 1989 I have been directly involved in activities and in a leadership role within the Technical Committee 7: TC7 (System Modeling and Optimization). These include coordinating activities of research groups in the area of Control and Optimization of Dynamical Systems and in running biannual General TC7 Conferences.

- Chair, the Working Group WG.7.2, TC7 IFIP: Computational Techniques in Distributed Systems, 1989– 2002
- Vice-Chair, TC7 Committee on Modelling and Optimization: 1995–2001
- Chair, IFIP TC7 Committee on Modeling and Optimization, 2001–2008
- V-Chair of IFIP Technical Committe 7: TC7 on Modeling and Optimization, 2008 -present http://www.ifip.org and http://www.math.virginia.edu/ ifip
- 2. Member, Nominating Committee for the Kyoto Prize, the Inamori Foundation, 1996, 1999, 2003, 2006 -2013
- 3. US Representative in IFIP, since 1996
- 4. IFIP Representative to FOCUS (Federation on Computing in the United States), 1996–1999
- 5. Board of Directors, ISAAC (International Society of Applied Analysis and Computations), since 1998
- 6. AMS Southeastern Section Program Committee, 1999–2001
- 7. ACM's TC7 IFIP Representative, 2000–present
- 8. International Advisory Board, Polish Academy of Sciences, since 2006
- 9. Nominating Committee for Japan Prize, Science and Technology Foundation of Japan (JSTF), 2001-2013
- 10. Nominating Committee Kyoto Prize founded by Inamori Foundation, 199-2014.
- 11. Member of CBMS-SIAM Panels and NSF Panels, 2001, 2003, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012
- 12. Member of SIAM-NSF-AFOSR Panel on Perspectives and Trends in Control Theory, 1988
- 13. SIAM-PDE, Panel on Future Directions in Partial Differential Equations, Phoenix, AZ, December 13, 2007
- 14. SEARCDE, Southwestern Regional Conference Differential Equations, Steering Committee-member, 2010-2013.
- 15. Nominating Committee for the 2014 SIAM W.T. Idalia Reid's Prize.
- 16. AMS-Simons Travel Grants Committee for a term of three years, effective February 1, 2017 through January 31, 2020.
- 17. AMS-RCW [Research Collaborations] Committee. 2017-2020.
- 18. Nomination Committee Lagrange Prize, ICIAM, 2021.
- 19. IFIP Fellowship Committee, 2021.

# IX (c) Service to National Science Foundation and CBMS-NSF-SIAM

- National Science Foundation: Member of PYI Panels (Principal Young Investigator's Program),
- Member of Special Panel on Perspectives and Trends in Control Theory, 1988;
- IGERT Panels, 2001,2003.
- DMS-PDE (Partial Differential Equations) Panels,
- DMS- Applied Analysis Panels,
- Control Theory and Optimization Panels,
- CBMS (Conference Board Mathematical Sciences) Panels, 2003-2018

### IX(d) International scientific program committees (IPC)

- 1. International Conference on Boundary Control and Boundary Variations, IFIP sponsored conference, Université de Nice, Nice, France, June 10–13, 1986
- 2. Conference on Control Problems for Systems Described by PDE's, University of Florida, Gainesville, FL, Feb. 3–6, 1986 (Chair)
- 3. International Conference on Control of Partial Differential Equations, IFIP sponsored conference, Santiago de Campostella, Spain, July 6–9, 1987
- 4. IIASA Conference on Modelling and Inverse Problems, Laxenburg, Austria, July 24–29, 1989 (Co-Chair)
- 5. IFIP Conference on Control and Stabilization, Clermont Ferrand, France, June 20–23, 1988
- 6. IFIP Conference on Optimal Control of Partial Differential Equations, Irsee, Germany, April 9–12, 1990
- 7. IFIP-TC7 Conference on Control Theory of Distributed Parameter Systems and Applications, Fudan University, Shanghai, China, May 6–9, 1990
- 8. International Conference on Boundary Control and Boundary Variations, organized by CNRS and École des Mines de Paris, Sophia-Antipolis, France, Oct. 15–17, 1990
- 9. 15th IFIP Conference on System Modelling and Optimization, Zurich, Switzerland, Sept. 2–6, 1991
- 10. 16th IFIP Conference on System Modelling and Optimization, Compiegne, France, July 5–9, 1993
- 11. International Conference on Boundary Control and Boundary Variations, Sophia Antipolis, France, June 8–12, 1992
- 12. IFIP Conference on Numerical Analysis and Optimization, Rabat (Morocco), Dec. 15–17, 1993
- 13. IFIP Workshop on Control of PDE's Santander (Spain), Sept. 5–9, 1994 (Chair)
- 14. IFIP Conference on Control of PDE's, Trento (Italy), Jan. 4-9, 1993
- 15. IFIP Conference on Modelling and Optimization of DPS with Applications to Engineering, Warsaw (Poland), July 17–21, 1995 (Chair)
- 16. 17th IFIP General Conference on Modeling and Optimization, Prague, July 10-14, 1995
- 17. SIAM Conference on Control and Systems Theory St. Louis, Missouri, April 27–29, 1995
- 18. First International Conference on Nonlinear Problems in Aviation and Aerospace, Daytona Beach, May 9–11, 1996
- 19. 18th IFIP General Conference on Modelling and Optimization, July 1997, Detroit (Co-Chair)
- 20. Conference on Control of PDE's, organized by CIRM, Luminy, France, June 16–21, 1997
- 21. IFIP Conference on Optimal Control: Theory and Algorithms, Gainesville, FL, March 1–4, 1997
- International Symposium on Methods and Models in Automation and Robotics, MMAR Miedzyzdroje, Poland, Aug. 24–29, 1997
- 23. 19th IFIP General Conference on Modelling and Optimization, Cambridge, England, July 1999
- 24. International Conference honoring 90th birthday of L. S. Pontryagin, Moscow, Russia, Sept. 1–6, 1998
- 25. IFIP Conference on Distributed Parameter and Stochastic Systems, Huangzhou, China, June 19–22, 1998
- 26. IFIP Conference on Optimal Control of Partial Differential Equations, Chemnitz, Germany, April 20–24, 1998
- 27. International Symposium on Methods and Models in Automation and Robotics, MMAR Miedzyzdroje, Poland, Aug. 21–27, 1998

- 28. An International Conference on Distributed Systems: Optimization and Economic-Environmental Applications, sponsored by IIASA and IFIP, Ekaterinburg, Russia, May 23–26, 2000 (Co-Chair)
- 29. Advances in Control of Nonlinear Distributed Parameter Systems, Texas A&M University, Oct. 22–24, 1999
- 30. Optimal Control of Dynamical Systems, Oberwolfach, June 4–10, 2000
- 31. Third International Conference on Nonlinear Problems in Aviation and Aerospace, Daytona Beach, May 10–12, 2000
- 32. SIAM Control Conference, San Diego, July 2001
- 33. 20th IFIP General Conference on Modelling and Optimization, Trier, Germany, July 2001
- 34. 3rd ISAAC Congress, Berlin, Germany, Aug. 20-25, 2001
- 35. IMA-NSF Workshop on Geometric Methods in Inverse Problems and Control, Univ. of Minnesota, Minneapolis, July 2001 (Co-organized with C. Crooke, G. Uhlmann, and M. Vogelious)
- 36. IFIP Conference on Control Problems in PDE's, Constanza, Romania, September, 2002
- 37. 21st IFIP General Conference on Modeling and Optimization, Sophie Antipolis, France, July 21–25, 2003, Chair of IPC
- 38. ECCOMAS 2004, 4th European Congress on Computational Methods in Applied Sciences, Jyvakyla, Finland, July 24–28, 2004, Co-Chair of IPC Committee on Optimization and Control
- 39. Conference on Evolution Equations, Venezuela, January 7–14, 2003, Co-Chair with P. Lumer
- 40. International Conference on Distributed parameter Systems and Ecology, IAASA, Laxenburg, Austria, May 21–25, 2003
- 41. 9th IEEE-MMAR International Conference, Miedzyzdroje, Poland, August 30-September 1, 2003
- 42. ISAAC Congress, Toronto, August 11–16, 2003
- 43. WCNAA 2004 Congress on Nonlinear Analysis, Orlando, June 30-July 5, 2004
- 44. 10th IEEE-MMAR International Conference, Miedzyzdroje, Poland, August 24–30, 2004
- 45. 22nd IFIP General Conference on Modeling and Optimization, Torino, Italy, July 2005, Chair of IPC
- 46. International Conference on Dynamical Systems and Differential Equations, June 16–19, 2004, Los Angeles, CA, member of IPC
- 47. 18th IFIP World Computer Congress, August, 22–27, 2004, Toulouse, France, member of IPC
- 48. Conference on Free and Moving Boundaries, Houston, December 2-4, 2004
- 49. The 7th IASTED International Conference on Control and Applications, CA 2005, May 18–20, 2005 Cancun, Mexico, member of IPC
- 50. Conference on Differential Equations and Dynamical Systems, Guelph, Canada, July 29–31, 2005
- 51. 11th IEEE-MMAR International Conference, Miedzyzdroje, Poland, August 27-September 2, 2005
- 52. International Congress on Applications of Mathematics (ICAM), Santiago de Chile, Chile, March 13–17, 2006, member of the IPC Committee for Control System Theory
- 53. ICNPAA 2006, Mathematical Problems in Aerospace Sciences, Budapest, Hungary, June 21–23, 2006
- The First International Conference on Complex Systems and Applications. Hukhot, Mongolia, June 15–18, 2006

- 55. 12th IEEE-MMAR International Conference, Miedzyzdroje, Poland, August 27–September 2, 2006, member of IPC
- 56. The IASTED International Conference on Control and Applications, CA 2007, Montreal, Canada from May 30–June 1, 2007, member of IPC
- 57. 13th IEEE-MMAR International Conference, Miedzyzdroje, Poland, August 27–September 2, 2007, member of IPC
- 58. The 5th International Conference on Differential Equations and Dynamical Systems, December 16–18, 2006, Edinburg, TX, member of IPC
- 59. 23rd IFIP Conference on Modeling and Optimization, Krakow, Poland, July 23–27, 2007, Chair of IPC URL: http://ifip2007.agh.edu.pl
- IASTED (International Conference on Control and Applications), Quebec, Canada, May 26–28, 2008, member of IPC
- 61. 24th IFIP Conference on Modeling and Optimization, Buenos-Aires, Argentina, July 2009, Chair of IPC
- 62. 7th AIMS (American Institute of Mathematical Sciences), Conference on Dynamical Systems and Differential Equations, May 18–21, 2008, Arlington. TX, member of the IPC
- 63. International Symposium on System Theory, Morocco, May 25–28, 2009, member of IPC
- 64. IASTED (International Conference on Control and Applications), ICA-2009, August 17–19, 2009, Honolulu, Hawaii, member of IPC
- 65. International Conference on Mathematical Control Theory, May 15-17, 2009, Chinese Academy of Sciences, Beijing, China
- 66. ICNPAA 2009, Mathematical Problems in Aerospace and Robotics, Rio de Janeiro, 2010 -member of IPC.
- 67. IASTED (International Conference on Control and Applications), ACIT0CDA-2010, June 15-18, 2010, Novosybirsk, Russia, member of IPC
- 68. 25 IFIP Conference on Modeling and Optimization, Berlin, 2011. Co-Chair of IPC. http://www.ifip2011.de/
- 69. IASTED International Conference on Control and Applications (CA 2011), Vancouver, BC, Canada from June 01, 2011 to June 03, 2011.
- 70. IASTED http://www.iasted.org/conferences/home-729.html, (CA 2012), Crete, Greece, June 18-20, 2012. link:http://www.iasted.org/conferences/home-781.html
- 71. 26 IFIP Tc7 Conference on Modeling and Optimization, Klagenfurt, Austria, September 9-13, 2013.
- 72. IFAC Workshop on Control of Systems modeled by PDE's (CPDE13), Institute Henri Poincare, Paris, Sept. 25-27,2013.
- 73. IASTED International Conference on Control and Applications (CA 2013), Honolulu, August 26-28, 2013.
- Conference on Recent Advances in Mathematical Sciences-in honor of Prof. Lakshmikantham, Institute for Advanced Studies, Viskapatnam, India, Dec 19-22, 2013.
- ICNPAA 2014-Mathematical Problems in Engineering, Aerospace and Science, Narvik University, Norway, July 15-18, 2014.
- 76. International Congress in Honor Of Ravi Agarval, Bursa, Turkey, June 323-26,2014
- 77. 27 IFIP TC7 Conference on Modeling and Optimization, Sophie Antipolis, France, 2015.
- 78. 13-th Workshop on PDE's, UFRJ, Rio de Janeiro, September 9-12, 2014.

- 79. SiAM Conference on Control and Its Applications, SIAM-CT15, Paris, July 8-10, 2015.
- 80. 16-th IASTED International Conference on Control and Applications (CA 2014),
- 81. MMAR-IEEE International Conference on Methods and Models in Automation and Robotics, Miedzyzdroje, August 24-27, 2015.
- 82. ICNPAA Congress 2016. 5-8 July, 2016. University de la Rochelle. La Rochelle, France.
- 83. XIV Workshopon Partial Differential Equations, LNCC, Petropolis-Rio de Janeiro, September 22-25, 2015.
- 84. IFAC Workshop on Control of Systems Governed by PDE's. June 13-15, 2016. Bartinoro Italy.
- 85. System Analysis:modeling and Control . Russian Academy of Sciences, Ekaterinburg, October 3-8, 2016 http://www.cpde2016.org
- 86. 14;th EUROPT Workshop on Advances in Continuous Optimization, Warsaw, Poland, July 1-2, 2016.
- 87. Conference on Dynamical Systems and Applications, Institute of Mathematics, Lodz University of Technology, June 16-18, 2016.
- 88. XV WPDE RIO-2016-Workshop on Partial Differential Equations- LNCC Rio de Janeiro, September 13-16, 2016
- 89. GPCO 2017-7th German-Polish Conference on Optimization, Polish Academy of Sciences, Bedlewo. 27 August-1 September, 2017.
- 90. 28 IFIP Conference on Modeling and Optimization, Essen, July 2018,
- 91. MAO 2017-International Conference on Mathematical Analysis and Optimization, Sept 24-26, 2017, Suzou, China,
- 92. MMAR-IEEE 2018 . 23rd Intern. Conference on Methods and Models in Automatica and Robotics. Miedzyzdroje, Poland, August 23-30, 2018.
- 93. DEA -2019 "Dynamics, Equations and Applications". 16-20-September, 2019. AGH, Cracov, Poland
- 94. 3-rd IFAC Workshop on Control of Systems Governed by PDEOs (CMPDE), May 20-24, 2019, Oaxaca, Mexico.
- 95. Conference on Evolution Equations: Applied and Abstract Perspectives. CIRM [Centre International de Reserche Mathematique], Luminy, Oct 28-Nov1, France, 2019.
- 96. MMAR-IEEE Conference. International program Committee, August 24-27, 2021.
- 97. 100 Years of PTM, Krakow, 3-7 September, 2019.
- 98. ICNPAA World Congress 2020-Mathematical Problems in Engineering, Aerospace and Science, Czech Technical University of Prague. Prague June 22-25, 2021.
- 99. 29 IFIP TC7 Conference on Modeling and Optimization, Quito, Equador, Sept 1-4, 2021
- 100. MSRI-Univ of California, Berkeley, , Semester on Mathematical Problems in Fluid Dynamics, Spring 2021.

# IX(e) Organizer of special sessions/minisymposia/conferences

- A. Conferences
- 1. IFIP Conference on Control Problems for Systems Described by Partial Differential Equations and Applications, University of Florida, Gainesville, Feb. 3–6, 1986
- 2. IFIP-IAASA Conference on Modeling and Inverse Problems, Laxenburg, Austria, July 14–29, 1989

- 3. IFIP Conference on Numerical Analysis and Optimization, Rabat, Morocco, Dec. 15–17, 1993
- 4. SIAM Symposium on Industrial Problems in Control, San Diego, CA, July 22–23, 1994
- 5. IFIP Conference on Modeling and Optimization with Applications to Engineering, Warsaw, Poland, July 17–21, 1995
- 6. 18th IFIP General Conference on Modelling and Optimization, Detroit, MI, July 22–25, 1997
- 7. AMS Summer Research Conference on Optimization and PDE's, Mt. Holyoke, June 16–20, 1996
- 8. IMA Workshop on Geometric Methods in Inverse Problems and Control, July 16–27, 2001
- 9. 21st IFIP Conference on System Modeling and Optimization, Sophia Antipolis, France, July 21-23, 2003
- 10. 22nd IFIP Conference on Modeling and Optimization, Torino, Italy, July 2005
- 11. AMS Summer Research Conference on Control of Nonlinear PDE Systems, Snowbird, Utah, July 3–8, 2005
- 12. 23rd IFIP Conference on Modeling and Optimization, Krakow, Poland, July 23–27, 2007, Chair of IPC
- 13. 24rd IFIP Conference on Modeling and Optimization, Buenos Aires, Argentina, July 25–29, 2009, V-Chair of the Conference
- 14. NSF Workshop Horizons in Infinite Dimensional Deterministic and Stochastic Systems with Applications to Engineering, Univ. of California, Los Angeles, UCLA, January 30–February 2, 2009
- 15. NSF-UCLA Workshop on Axial Flow and Flutter, UCLA, Nov. 19-22, 2012.
- 16. First IFAC Workshop CPDE, Institute Henri Poincare, Paris, France, Sept 25-27, 2013.
- 17. SEARCDE Conference 2013, University of Memphis. October 11-12, 2013.
- 18. AMS Sectional Conference, University of Memphis, October 17-18, 2015.
- 19. Banff International Research Station: Women in control: new trends in infinite dimensions (with K. Morris and L. De Teresa ) -July 16-21, 2017.
  - B. Minisymposia, special sessions
- 1. 26th CDC Conference, Special Session on Control of PDE's, Los Angeles, CA, 1987
- 2. 24th CDC Conference, Special Session on Control of PDE's, Fort Lauderdale, FL, Dec. 1985
- 3. 12th IFIP Conference, Special Session on Control of PDE's, Budapest, Sept. 1985
- 4. 23rd CDC Conference, Special Session on Control of PDE's, Las Vegas, NV, Dec. 1984
- 5. 21st CDC Conference, Special Session on Control of PDE's, Orlando, FL, Dec. 1982
- 6. 13th IFIP Conference on System Modellings and Optimization, Special Session on Distributed Parameters System, Tokyo, August–September 1987
- 7. 14th IFIP Conference on System Modelling and Optimization, Special Session on New Trends in Control Theory, Leipzig, Germany, July 3–7, 1989
- 8. 15th IFIP Conference on System Modelling and Optimization, Special Session on Numerical Techniques for Control Problems, Zürich, Switzerland, Sept. 2–6, 1991
- 9. 13th IMACS World Congress on Computation and Applied Mathematics, Special Session on Computational Techniques in Distributed Systems, Trinity College, Dublin, Ireland, July 22–26, 1991

- 10. ICIAM 91 International Conference on Industrial and Applied Mathematics, Minisymposium on Boundary Control Theory for Partial Differential Equations, Washington, DC, July 8–12, 1991
- 11. 15th IFIP Conference on System Modelling and Optimization, Special Sessions on Optimization and Stability Methods for Distributed Parameter Systems, and Numerical Techniques in DPS, Zürich, Switzerland, Sept. 2–6, 1991
- 12. 13th IMACS World Congress on Computation and Applied Mathematics, Special Session on Control of Distributed Parameter Systems, Dublin, Ireland, July 22–26, 1991
- 13. The Ulam Mathematics Conference, Special Session on Control Theory, Palm Beach, April 3–5, 1991
- 14. IFIP Workshop on Control of PDE's, Trento, Italy, Jan. 4–9, 1993
- 15. IFIP Workshop on Control of PDE's, Laredo, Spain, Sept. 5–9, 1994
- 16. Minisymposium on Nonlinear Problems in Control Theory, at the SIAM Conference on Control and Systems Theory, St. Louis, MO, April 27–29, 1995
- 17. ICIAM 95 Third International Congress on Industrial and Applied Mathematics, Minisymposium on Control Problems for PDE's, Hamburg, Germany, July 3–7, 1995
- 18. SIAM Minisymposium on Control of Large Scale Sytems, Charlotte, NC, Oct. 23–26, 1995
- 19. IFIP Conference on Modeling and Optimization, Warsaw, Poland, Session on Control of PDE's, July 17–21, 1995
- 20. 18th IFIP Conference on Modeling and Optimization, Detroit, MI, Minisymposium on Nonlinear Control Problems in PDE's, July 21–24, 1997
- 21. 37th IEEE CDC Conference, Special Session on Control of Interactive Structures, Tampa, FL, Dec. 16–18, 1998
- 22. 19th IFIP Conference, Special Sessions (3) on Control of PDE systems, Cambridge, July 16–19, 1999
- 23. International Conference on Dynamical Systems and Differential Equations, Minisymposium on Optimization of Interactive PDE Structures, Atlanta, GA, May 18–21, 2000
- 24. Conference on Nonlinear Problems in Aviation, Special Session on Control of Distributed Parameter Systems, Daytona Beach, FL, May 9–12, 2000
- 25. IMACS Congress, Minisymposium on Wellposedness and Asymptotic Behavior of Nonlinear Dynamics Arising in Shell Theory, Lausanne, Switzerland, Aug. 2000, co-organized with I. Chueskov
- 26. ISAAC Congress, Special Session on Nonlinear Waves, Berlin, Germany, Aug. 21–25, 2001, co-organized with H. Koch, Univ. of Heidelberg
- 27. Annual SIAM Conference on Control, Minisymposium on Control Theory for Interactive PDE's, San Diego, CA, July 11–14, 2001, co-organized with G. Avalos and J. Cagnol
- 28. Minisymposium on Nonlinear Waves, SIAM Annual Conference, Philadelphia, July 8–12, 2002
- 29. Workshop on Nonlinear waves, University of Virginia, December 6-9, 2002
- 30. Minisymposium on Control of PDE's within 21-st IFIP Conference on Modeling and Optimization, Sophia Antipolis, France, July 21-25, 2003
- 31. Minisymposium on Control of Nonlinear PDE Systems, co-organized with G. Avalos and F. Bucci, within 22nd IFIP Conference on Modeling and Optimization, Torino, Italy, July 17–21, 2005
- 32. Special session on Asymptotic stability and long time behavior of nonlinear PDE dynamics, 5th ISAAC Congress, Catania, Italy, July 24–29, 2005

- 33. Minisymposium (5 invited sessions) on New Developments in Nonlinear PDE's, organized with G. Todorova at the AIMS Conference on Dynamical Systems and Differential Equations, Poitiers, France, June 25–28, 2006
- 34. Special Session on Nonlinear Evolutionary PDE Systems and their Control, organized with G. Avalos at the AMS Conference, Johnson City, TN, Oct 15–16, 2005
- 35. Minisymposium on Control of Partial Differential Equations, organized with G. Avalos and J. Cagnol, within the 23rd IFIP Conference on Modeling and Optimization, Kracow, Poland, July 23–27, 2007
- 36. Joint AMS-PTM Meeting, Warsaw, Poland, July 27–August 3, 2007, organizer (jointly with J. Sokolowski) of Special Session on Control and Optimization of Nonlinear PDE Systems
- 37. Special Session organized within AIMS 10th Conference on Dynamical Systems, Arlington, Texas, May 18–21, 2008
- 38. World Congress of Nonlinear Analysis, Orlando, FL, July 1–5, 2008, organizer (jointly with L. Tebou) of Special Session on Control of Nonlinear PDE's
- 39. Conference in honor of L. Pontryagin, Moscow, Russia, June 17–20, 2008, organizer of Special Session on Control Theory and Differential Games (with M. Zelikov)
- 40. 7th ISAAC Congress, Imperial College, London, GB, July 13–18, 2009 Organizer (with F. Bucci) of a special session Society for Analysis, its Applications and Computation <a href="http://www.isaac2009.org/Congress/Welcome.html">http://www.isaac2009.org/Congress/Welcome.html</a>
- 41. 24th IFIP TC7 Conference on System Modelling and Optimization, July 27–31, 2009, Buenos Aires, Argentina, minisymposium organized with G. Avalos, J. Cagnol, and M. Delfour on Control Problems for Evolutionary PDE's <a href="http://www.ifip2009.org/">http://www.ifip2009.org/</a>
- 42. SIAM -PDE Conference, December 7-11, 2009, Miami, Fla. Minisymposium on Analysis and Control of Evolutionary Nonlinear PDE-Interactive Systems (with G. Avalos).
- 43. 8-th AIMS Conference on Dynamical Systems and Differential Equations, May 25-29, 2010, Dresden, Germany. Special session (with G. Todorova) on New Developments in Qualitative Behavior of Nonlinear Evolutionary Equations, url: http://www.aimsciences.org/AIMS-Conferences/conf-reg2010
- 44. SIAM Conference on PDE-s, San Diego, Nov. 14-17, 2011, Special Invited session "Fluid Structure and Flow Structure Interactions-Modeling and Control", organized with G. Avalos and L. Bociu .
- 45. 9-th AIMS Conference on Dynamical Systems, Orlando, July 1-5, 2012. Special Invited Session "Nonlinear PDE's and Control Theory with Applications." Organized with L. Bociu, B. Kaltenbacher and P. Radu.
- 46. SIAM Annual Meeting, Minneapolis, July 9-13, 2012, Minisymposium on "Control Problems for partial Differential Equations", in honor of Walter Littman, organized with Steve Taylor and R. Triggiani.
- 47. Festschrift for Bob Gilbert. Mathematical Analysis with Applications to Biology. University of Delaware, August 809, 2012.
- 48. ISAACS Conference on Analysis and Applications. Minisymposium on Control and Optimization of Nonlinear Systems. (with J. Webster and G.Avalos), Krakov, Poland, August 5-9, 2013.
- 49. SIAM Conference, San Diego, July 7-10, 2013. Minisymposium (with B. Mordukovitch ) Control and Stabilization of Nonlinear PDE's.
- 50. SEARCDE Conference, University of Memphis, October 11-12, 2014.
- 51. Banff International Research Station: Women in control: new trends in infinite dimensions (with K. Morris and L. De Teresa) -July 16-21, 2017.
- 52. SIAM PDE, Special Session on Fluid Structure Interactions (with M. Disconizi), Baltimore, December 9-11, 2017.

- 53. IFIP 28-th TC7 Conference on Modeling and Optimization, Essen, Memorial session: In Memory of Igor Chueshov, (with J. Webster)Jully 2018.
- 54. ICNPAA Congress 2018-Mathematical Problems in Engineering, Aerospace and Science. Yerevan Armenia, July 3-6, 2018.
- 55. Special Session on Control in Infinite Dimensional Systems at the AWM Research Symposium, Rice University, April 6 7, 2019 (https://sites.google.com/site/awmmath/home/RS17/RS19)
- 56. Differential Equations and Applications, DEA, Krakow AGH, September 3-8, 2019
- 57. 3-rd IFAC Workshop on Control of Systems Governed by PDE Os (CMPDE), May 20-24, 2019, Oaxaca, Mexico.
- 58. Conference on Evolution Equations: Applied and Abstract Perspectives. CIRM [Centre International de Recherche Mathematique], Luminy, Oct 28-Nov1, France, 2019.
- 59. MMAR-IEEE Conference International Program Committe, September, 2019
- 60. 100 Years of PTM, Krakow, 3-7 September, 2019.
- 61. The 29-th IFIP General Conference on Modeling and Optimization, August 31-September 4, 2020.. Quito, Ecuador.
- 62. AIMS Conference on Differential Equations -June 5-9, 2020, Atlanta, GA.
- 63. MSRI -Univ of Berkeley Semester on Mathematical Theory of Fluid Dynamics. Spring 2021.
- 64. SIAM 2021 Control Conference, Minisymposium with W. Hu Control Of PDEs with an Interface. July 21-22, 2021.

# IX(f) Service to UVa (major committees; samples since 2000)

- 1. Mathematics Department Search Committee (2000–01, 2001–02, 2007–08)
- 2. P&T (Promotion and Tenure) Committee, College of Arts and Sciences (2002–04)
- 3. Committee on Restructuring Graduate Program, Department of Mathematics (2002–03)
- 4. Graduate Committee, Department of Mathematics (since 2002)
- 5. Director of Graduate Studies, Department of Mathematics (2004–09)
- 6. Graduate Advisor, Department of Mathematics (2007–09)
- 7. Graduate Admissions (Chair), Department of Mathematics (2008–09)
- 8. Steering Committee, Department of Mathematics (2007–10)
- 9. GAANN (Graduate Assistance in the Areas of National Needs) from the Department of Education, \$750,000 (2009-12), Co-PI with K. McCrimmon, L. Thomas, B. MacCluer (PI: J. Imbrie)
- 10. Dept. Search Committee for Departmental External Chair 2011.
- 11. Co-PI of GAANN (Graduate Assistance in the Areas of National Needs) Proposal, 2012.
- 12. Director of Graduate Studies, 2012

# X INVITED PRESENTATIONS (1985–present)

# X(a) Plenary speaker (keynote lecturer) at the conferences

- 1. 12th IFIP Conference on System Modelling and Optimization, Budapest, Hungary, Sept. 2–6, 1985
- 2. SEARCDE Southeastern AMS Atlantic Conference on Differential Equations, Georgia Institute of Technology, Atlanta, Oct. 25–26, 1985
- 3. IFIP Conference on Boundary Control and Boundary Variations, Nice, France, June 10–13, 1986
- 4. NSF-AFOSR Conference on Control of Systems Governed by PDE's, Montreal, CA, Oct. 5-9, 1986
- 5. International Conference on Control Problems for PDE's, Santiago de Compostela, Spain, July 6–9, 1987
- Modelling, Information Processing and Control, MIPAC Conference; University of Wisconsin, Madison, May 15–18, 1988
- 7. Perspectives in Control Theory, Polish Academy of Sciences, Sielpia, Sept. 19–24, 1988
- 8. SIAM Annual Meeting, Chicago, IL, July 15–20, 1990
- 9. 10th INRIA International Conference on Analysis and Optimization, Nice, France, June 9-12, 1992
- 10. 2nd International SIAM Conference on Mathematical and Numerical Aspects of Wave Propagation, Univ. of Delaware, June 7–10, 1993
- 11. 8th Annual Three Rivers Applied Mathematics Colloquium, University of Pittsburgh, April 1–2, 1995
- 12. IFIP Conference on Control of PDE's, Laredo, Spain, Sept. 4–9, 1994
- 13. 34th CDC-IEEE Conference, New Orleans, Louisiana, Dec. 13–16, 1995
- 14. MTNS Conference, St. Louis, MO, June 24–28, 1996
- 15. 2nd Congress on Nonlinear Analysis, Athens, Greece, June 10–17, 1996
- 16. Principal Lecturer, Barrett Lectures, University of Tennessee, Knoxville April 1997
- 17. International Conference on Applied Analysis, Samos, Greece, July 4–9, 1996
- 18. ISAAC Congress 97, Delaware, MD, June 3–7, 1997
- 19. Conference on Stochastic and Deterministic Control, Scuola Normale Superiore, Pisa, Italy, July 3–7, 1997
- 20. 98- IEEE-MMAR Conference, Miedzyzdroje, Poland, Aug. 24–27, 1998
- 21. First International Conference on Semigroups, in honor of R. Phillips, Newport Beach, CA, Dec. 14–16, 1998
- 22. Control of Systems Governed by PDE's, Univ. of Nancy, France, March 8-12, 1999
- 23. Principal Lecturer at the NSF–CMBS Conference on Mathematical Control Theory of Coupled PDE's, Univ. of Nebraska, Lincoln, Aug. 4–10, 1999
- 24. Control of Nonlinear Distributed Parameter Systems, Conference in honor of 60th birthday of D. Russell, Texas A&M University, Oct. 22–24, 1999
- 25. German-Polish Conference on Optimization-Methods and Applications, Zagan, Poland, Sept. 14–18, 1999
- 26. AMS Conference on Differential Geometric Methods of PDE's, Boulder, Colorado, June 27-July 1, 1999
- 27. AIMS International Conference on Dynamical Systems and Differential Equations, Atlanta, GA, May 18–21, 2000
- 28. 29th Conference on Applied Mathematics (IEEE Distinguished Lecturer), Zakopane, Poland, Sept. 19–26, 2000
- 29. Second Meeting on Inverse Problems, Gargnano, Italy, April 1–7, 2001

- 30. International Conference on Dynamics of Continuous Systems, London, Canada, July 27–31, 2001
- 31. SIAM Annual Meeting and Control Conference, San Diego, July 9–13, 2001
- 32. Autumn School on Semigroups and Evolutions, CNRS, Trento, Italy, November 1-5, 2001
- 33. French-German Conference on Optimization, Cottbus, Germany, September 9–13, 2002
- 34. Symposium on Partial Differential Equations: Iguacu, Brazil, December 17-19, 2003
- 35. Barett Lectures, University of Tennessee, April 28–30, 2005
- 36. Differential Equations and Dynamical Systems, Guelph, Canada, July 29–31, 2005
- 37. Conference on Differential and Difference Equations with Applications, Melbourne, FL, August 1–5, 2005
- 38. ICNPAA 2006 Mathematical Problems in Engineering, Budapest, Hungary, June 21–23, 2006
- 39. The International Conference of Hybrid Systems and Applications, Lafayette, LA, May 22–26, 2006
- 40. Advances in Control theory of Partial Differential Equations, Univ. of Maryland, Oct. 28–29, 2006
- 41. Congres of Applied Mathematics, Lima, Peru, January 9-12, 2007
- 42. Functional Analysis and Optimization, in honor of S. Rolewicz, Bedlewo, Poland, Septebmber 17–21, 2007
- 43. WCNA 2008 Fifth World Congress of Nonlinear Analysis, July 2–9, Orlando, FL, 2008
- 44. 6th International Conference on Differential Equations and Dynamical Systems, Baltimore, May 22–25, 2008
- 45. 50 Years of Control Theory, Polish Academy of Sciences, Bedlewo, September 15–22, 2008
- 46. International Conference on Differential Equations and Topology, dedicated to 100th birthday of L. S. Pontryagin. Moscow State Univ., June 18–25, 2008
- 47. Systems Theory, Modelling, Analysis and Control, Fes, Morocco, May 25–28, 2009
- 48. SEARCDE-29, Southestern Regional Conference on Differential Equations, , Macon. Georgia, October, 16-17, 2009
- 49. ICNPAA 2010: Mathematical Problems in Engineering, Aerospace and Sciences, INPE, San Jose dos Campos, Brazil, June 30–July 3, 2010
- 50. Analysis Days, King Fahd University of Petrolium and Minerals (KFUPM), Dhaharan. Dec 21-23, 2010.
- 51. Summer School: Nonlinear Hyperbolic PDE's, Dispersive and Transport Equations: Analysis and Control. Sissa, Trieste, Italy, May 16-July 26, 2011 (7 lectures)
- 52. Summer School on Linear and Nonlinear Evolutions. Istambul, July 1-30, 2011. (4 lectures)
- 53. 2011 SIAM Reid Prize Lecture, Hyatt Regency, Baltimore, July 27, 2011
- 54. ICNPAA 2012 Congress: Mathematical Problems in Engineering, Aerospace and Sciences. Vienna University of Technology, Vienna, Austria, July 10-14, 2012
- 55. ANCNA -Conference on Communications in Nonlinear Analysis, Bolu, Turkey, July 3-6, 2013.
- 56. Conference on Theory, Methods and Applications of Differential Equations, Kingsville, TX, Dec 17-21, 2012.
- 57. One of the Four Main Lecturers at the Course on Recent Advances in Partial Differential Equations, University of Milano, Italy, June 17-22, 2013 (6 lectures)
- 58. EQUADIFF 13, Prague, Czech Republic, August 26-30, 2013.

- 59. Ellis B. Stouffer's Distinguished Lecture, University of Kansas, December 3, 2013.
- 60. PDE Conference COPDE, Novacella, Italy, May 28 -June 1, 2014.
- 61. International Conference on Hyperbolic Problems, IMPA, Rio de Janeiro, Brazil, July 280th-August 1, 2014.
- 62. Workshop on Shape Optimization and Topology Optimization with PDE Constraints- in honor of J. Sokolowski-LNCC, Petropolis-Rio de Janeiro, August 11-15, 2014.
- 63. Recent Trends in Nonlinear PDE's -NPDE 2014, 28-30 May, 2014, Trieste, Italy.
- Shanks Workshop on Mathematical Aspects of Fluid Dynamics, Vanderbilt University, February 28-March 1, 2015.
- 65. Plenary Speaker (one of four) at SIAM-SEAS 2015. March 20-25, 2015. University of Alabama.
- 66. Plenary speaker (one of three) at the Ninth IMACS Conference on Nonlinear Evolution Equations and Wave Phenomena. Georgia Center, University of Georgia, April 01-04, 2015
- 67. 7-th International Conference on Dynamic Systems and Applications. Atlanta, May 27-30, 2015.
- 68. Mathematical Fluid Mechanics:Old Problems, New Trends. Banach Center, Bedlewo, 30 August-5 September, 2015
- 69. AMS Conference at Stony Brook, March 19-20, 2016. One of the three Plenary speakers.
- International Conference on Evolution Equations and Shanks Lecture, Vanderbilt University, Nashville, May 16-20, 2016.
- 71. Nonlinear PDE's in Applied Mathematics, Izmir Institute of Technology, Turkey, August 28-30, 2016. One of the four plenary speakers.
- 72. Oberwolfach Seminar 2016, Nov 20-26, 2016. Plenary lecturer.
- 73. Banff International Research Station. Workshop on Control Theory of Infinite dimensional Control Systems, July 16-21, 2017. Main Speaker.
- 74. Conference on Automatic 2017. One of the four plenary speakers. Cracov, June 16, 2017,
- 75. GPCO 2017-7th German-Polish Conference on Optimization, one of the 6 plenary speakers. 27-08-01-09, 2017, Bedlewo-Polish Academy of Sciences, Poland.
- 76. Conference on Recent Advances in Mathematical Sciences and Applications (RAMSA-17), at GVP College of Engineering, Visakhapatnam, India.19th to 22nd December, 2017
- 77. Paths in Mathematical Control Theory, Torino, March 25-27, 2018. One of the three plenary speakers.
- 78. The Third International Conference on the Dynamics of Differential Equations-Fundamentals and Developments, In Memory of Professor Jack. K. Hale, Hiroshima, March 14-March 18, 2018.
- Emerging Trends in Applied Mathematics and Mechanics, Jagiellonian University, Ktracov, Poland June 18-22,
   One of the four plenary speakers.
- 80. SMACS 2018-Special Materials and Complex Systems. Palazzo Feltrinelli, Garganano, Italy, June 18-22, 2018.
- 81. Workshop on Dynamics, Control and Numerics for Fractional PDE's, [one of the 5 Plenary Lectures], Embassy Suites, San Juan, Dec 4-8, 2018.
- 82. Workshop on Fluid Structure Interactions, University of Milano, March 19-24, 2019.
- 83. IFAC Workshop on Distruibuted Parameter Systems, CMPDE, May 20-24, 2019, Oaxaca, Mexico

- 84. Romanian Congress of Mathematcs, Galati, Romania, July 28-August 1, 2019.
- 85. Series of virtual lectures [short course] at the 2-nd Summer Workshop on PDE and Dynamical Systems, Henan University, July 15-19, 2020.
- 86. Plenary talk at the Inauguration of the Center for Dynamical Systems, Henan University, Henan, China, July 22, 2020.
- 87. International Video-worhshop om Infinite Dimensional Dynamical Systems. Donghua University- Shanghai. China. Sepember 12-19, 2020 **one of 8 plenary Speakers**. .
- 88. AMS Regional Conference in Chattanooga, **Plenary Speaker** [45 min] at the invited virtual session *Modern Analysis*, October 10-11, 2020.
- 89. Plenary speaker at the MSRI Workshop Recent Developments in Fluid Dynamics, April 12-April 23, 2021.
- 90. Main Speaker Seminario Matematico e Fisico di Milano, February 1, 2021.
- 91. Plenary virtual lecture at the Workshop on Theory of Control Theory and Partial Differential Equations, May 24-28, 2021.
- 92. IWOTA 2021, **Plenary Speaker**, Chapman University, International Workshop on Operator Theory and its Applications. August 9, 2021.
- Summer School- Main Lecturer-4 Lectures, Fluids and Control Czech Academy of Sciences, August 21-27, 2021.
- 94. XII Forum of Partial Differential Equations, **Plenary Lecture**, Bedlewo, Polish Academy of Sciences, September 19-25, 2021.

# X(b) Invited conference speaker

# 1985

- 1. 2nd International Conference on Control Theory for Distributed Parameter Systems and Applications, Vorau, Austria, July 9–14, 1985
- 2. International Conference on Theory and Applications of Differential Equations, Edinburg, TX, May 20–23, 1985
- 3. International Conference on Differential Equations in Banach Spaces, University of Bologna, Bologna, Italy, July 1–5, 1985
- 4. 24th IEEE Conference on Decision and Control (SIAM-invited paper), Ft. Lauderdale, Dec. 11–13, 1985
- 5. NSF-AFSOR-NASA Workshop on Control Systems Governed by Partial Differential Equations with Applications to Large Flexible Structures (invited panel leader), Tampa, FL, March 4–8, 1985
- 6. NASA–UCLA Workshop on Computational Techniques in Identification and Control of Flexible Flight Structures, Lake Arrowhead, CA, Nov. 2–4, 1985

- 7. Operator Methods of Optimal Control Problems (Special Session), Annual Meeting of the American Mathematical Society, New Orleans, LA, Jan. 7–11, 1986
- 8. Conference on Optimal Control with Partial Differential Equations, Oberwolfach, May 18–24, 1986
- 9. Conference on Control and Identification of Distributed Systems, Vorau, Austria, July 6–12, 1986
- 10. AMS Conference on Semilinear Parabolic and Hyperbolic Equations, Charlotte, NC, Oct. 17–18, 1986

- 11. International Conference on Evolution Equations, Scuola Normale Superiore, Pisa, Italy, Feb. 1987
- 12. Conference in Honor of A. V. Balakrishnan's Sixtieth Birthday, Washington, DC, June 16–19, 1987
- 13. Trends in Semigroups and Applications, International Conference, Trieste, Italy, Sept. 28–Oct. 3, 1987
- 14. Combined Midwest-Southeast Differential Equations Conference, Vanderbilt University, Oct. 23–24, 1987
- 15. 26th IEEE Conference on Decision and Control, Los Angeles, CA, Dec. 9–11, 1987
- 16. COMCON Workshop on Stabilization of Flexible Structures, Montpellier, France, Dec. 11–15, 1987

### 1988

- 17. 8th International Conference Analysis and Optimization of Systems, INRIA, Antibes, June 8–10, 1988
- 18. 4th International Conference on Control at Distributed Parameter Systems, Vorau, Austria, organized by the University of Graz, July 10–16, 1988
- 19. IFIP Conference on Control Boundaries and Stabilization, Clermont-Fernoud, France, June 20–23, 1988
- 20. AMS Special Session on Control Theory, University of Kansas, Lawrence, Oct. 28–29, 1988
- 21. 27th IEEE Conference on Decision and Control, Austin, Texas, Dec. 7–9, 1988
- Mathematical Science Institute Conference on Applications of Microlocal Analysis, Cornell University, Ithaca, NY, Nov. 28–Dec. 3, 1988

#### 1989

- 23. SIAM Conference on Control in the 90's, San Francisco, May 17-18, 1989
- 24. General IFIP Conference on Modelling and Optimization, Leipzig, E. Germany, July 3-7, 1989
- 25. IIASA-IFIP Conference on Modelling and Inverse Problems, Laxenburg, Austria, July 24–29, 1989
- 26. International Conference on Differential Equations, Colorado Springs, June 7–10, 1989
- 27. 28th IEEE-CDC Conference, Tampa, Dec. 13-16, 1989
- 28. Workshop on Control Theory, Pisa, July 16-18, 1989

### 1990

- 29. AMS Annual Meeting, Louisville, KY, Jan. 17–18, 1990
- 30. 2nd Symposium on Optimal Design and Control of Structures, Jablonne, Poland, June 4–9 1990
- 31. International Conference on Optimal Control of Partial Differential Equations, organized by Univ. of Augsburg, Irsee, Germany, April 9–12, 1990
- 32. 4th NASA Workshop on Computational Control of Flexible Aerospace Systems, Williamsburg, VA, July 11–13, 1990
- 33. NSF Conference on Mathematical Control Theory, IIT, Bombay, Dec. 10–15, 1990
- 34. The 29th IEEE Conference on Decision and Control, Honolulu, Hawaii, Dec. 5-7, 1990

### 1991

35. NSF-CBMS Regional Conference on Nonlinear Dispersive Wave Systems, Orlando, FL, March 11–15, 1991

- 36. AMS Special Session, Operator Methods in Control Theory Tampa, FL, March 22–23, 1991
- 37. SIAM Conference ICIAM 91, Washington, DC, July 8-12, 1991
- 38. Meeting on Differential Equations in Banach Spaces, Bologna, Italy, July 1–5, 1991
- 39. International Workshop-Conference on Evolution Equations, Control Theory and Biomathematics, Hans-sur-Lesse, Belgium, Oct. 20–26, 1991
- 40. NSF Workshop on Stochastic Theory and Adaptive Control, Lawrence, KS, Sept. 26–28, 1991

- 41. IMA Workshop on Control, Univ. of Minnesota, Nov. 9–13, 1992
- 42. IFIP Conference of Boundary Control and Boundary Variations, Nice, France, June 3-5, 1992
- 43. First World Congress of Nonlinear Analysis, Tampa, FL, Aug. 19–26, 1992
- 44. SIAM Conference on Control, Minneapolis, Minnesota, Sept. 17–18, 1992
- 45. AMS Annual 1992 Meeting, Baltimore, MD, Jan. 8-11, 1992

### 1993

- 46. AMS Annual 1993 Meeting, San Antonio, Texas, Jan. 13–16, 1993
- 47. IFIP Workshop, Univ. of Trento, Italy, Jan. 4-9, 1993
- 48. AMS Annual Meeting, Special Session on Control and Stability, San Antonio, TX, Jan. 13–16, 1993
- 49. Conference on Optimal Control of Differential Equations, Ohio Univ., Athens, Ohio, March 25–27, 1993
- 50. Conference on Control and Estimation of Distributed Parameter System, Univ. of Graz, Vorau, Austria, July 18–24, 1993
- 51. First International Conference on Dynamic Systems and Applications, Atlanta, Georgia, May 26–29, 1993
- 52. Minisymposium on Control of PDE's, Texas A&M Univ., College Station, Oct. 21, 1993
- 53. AMS Meeting/Special Session, College Station, TX, Oct. 22–23, 1993
- 54. 32nd IEEE Conference on Decision and Control, San Antonio, TX, Dec. 15–17, 1993

### 1994

- 55. SIAM Annual Meetings, San Diego, CA, 1994
- 56. AFOSR Workshop on Optimal Design, ICIAM Blacksburg, VA, April 8–9, 1994
- 57. IAC Workshop on Control and Applications, Rome, Italy, July 11–13, 1994
- 58. ICCAM 94th International Conference on Computational and Applied Mathematics, Leuven, Belgium, July 25–30, 1994
- 59. IFIP Conference on Control of Partial Differencial Equations, Loredo, Spain, Sept. 4–9, 1994
- 60. 4th International Conference on Evolution Equations, Pisa, Italy, Sept. 26–30, 1994

- 61. AMS Meetings, Orlando, FL, March 17–18, 1995
- 62. ICIAM 95, Hamburg, Germany, July 3-7, 1995

- 63. 17-th IFIP Conference on Modeling and Optimization, Prague, July 10-14, 1995
- 64. IFIP Conference, Warsaw, Poland, July 17-21, 1995
- 65. SIAM Annual Meeting, Charlotte, NC, Oct. 23–26, 1995

- 66. SIAM Annual Meeting, Kansas City, KS, June 21–25, 1996
- 67. Conference on Nonlinear Problems in Aerospace, Daytona Beach, FL, May 9–11, 1996
- 68. SPIE's 1996 Symposium, San Diego, CA, Feb 25–29, 1996
- 69. MMAR-96 Conference, Miedzyzdroje, Poland, Sept. 10–13, 1996
- 70. AMS Conference on Mathematical Aspects of Wave Propagation, Chattanooga, TN, Oct. 11–12, 1996

#### 1997

- 71. SPIE Conference on Smart Structures and Materials, San Diego, CA, Feb. 4-7, 1997
- ISSAC Congress, Invited Session on Mathematical Methods in Wave Propagation, June 6, 1997
- 73. IFIP Conference on Optimal Control, Gainesville, FL, Feb. 27-Mar. 1, 1997
- 74. CIRM Conference on Control of PDE's, Luminy, Marseille, France, June 16–21, 1997
- 75. 18th IFIP General Conference on Modeling and Optimization, Detroit, MI, July 21–24, 1997
- 76. International Conference on Dynamics and Control of PDE's, Guanajuato, Mexico, Nov 29–31,1997

#### 1998

- 77. Semester on Control Theory of PDE's, Institut Henri Poincare; Paris, France, March 9-13, 1998
- 78. Workshop on Thermoelasticity, Nat. Lab. Scientific Comp., Rio de Janerio, Brazil, March 16–20, 1998
- 79. International Conference on Control of PDE's, Chemnitz University, Germany, April 20–25, 1998
- 80. 4th SIAM Conference on Control and its Applications, Jacksonville, FL, May 7–9, 1998
- 81. Conference on Control of Distributed Parameter and Stochastic Systems, Hangzhou, China, June 19–22, 1998
- 82. Conference on Semigroups of Operators, Newport Beach, CA, Dec. 14–18, 1998
- 83. Invited SIAM lecture at 37th IEEE CDC Conference, Tampa, FL, Dec. 16–18, 1998

## 1999

- 84. AMS Meeting, Invited Session on Control and Dynamics of PDE's, Las Vegas, NV, April 10–11, 1999
- 85. ICIAM 99, Invited Session on Control of Shells, Edinburgh, Scotland, July 5-9, 1999
- 86. 19th IFIP Conference, Invited Session on Control of DPS Systems, Cambridge, England, July 12–16, 1999
- 87. AMS Southestern Meeting, Invited Session on Optimal Control and Computational Optimization, Charlotte, NC, Oct. 15–17, 1999
- 88. 38th IEEE CDC Conference, Invited Session on Control of Distributed Systems, Phoenix, AZ, Dec. 7-10, 1999

# 2000

89. AMS Annual Meeting, Invited Session on Differential Geometric Methods in Control Theory, Washington, DC, Jan. 19–21, 2000

- 90. 3rd International Conference on Nonlinear Problems in Aviation and Aerospace, Daytona Beach, FL, May 10–12, 2000
- 91. International Conference on Distributed Systems, Ekaterinburg, Russia, May 30-June 2, 2000
- 92. International Workshop on Differential Equations and Optimal Control, Ohio University, May 12–14, 2000
- 93. Conference on Optimal Control of Dynamical Systems, Oberwolfach, June 4–10, 2000
- 94. Workshop on PDE's, Thermo-Visco Elasticity, University of Konstanz, Germany, July 31-Aug. 4, 2000
- 95. IMACS World Congress, Invited Session on Wellposedness and Qualitative Behaviour of Solutions to Nonlinear Shell Theory, Lausanne, Switzerland, Aug. 21–25, 2000
- 96. Third World Congress of Nonlinear Analysis, Catania, Sicily, July 19–26, 2000
- 97. PDE Conference, Virginia Tech. University, Blacksburg, VA, Oct. 15–16, 2000

- 98. AMS Conference, Invited Session on Calculus of Variations and Nonsmooth Analysis, Lawrence, KS, March 30–April 1, 2001
- 99. Workshop on Wellposedness in Optimization and Nonsmooth Analysis, Banach Center, Warsaw, Poland, Sept. 10–15, 2001
- 100. ISAAC Congress, Invited Session on Geometric Methods and PDE's, Berlin, Germany, Aug. 20–25, 2001
- 101. AMS Conference, Invited Session on Wave Propagation, Chattanooga, TN, Oct. 5-7, 2001

### 2002

- 102. AMS Annual Conference, Invited Session on Nonlinear PDE's, Jan. 7–11, 2002
- 103. Conference on Evolution Equations and Semigroups, INDAM Palazzone in Cortona, Italy, April 8–12, 2002
- 104. First Joint International Meeting AMS-Unione Matematica Italiana, Pisa, Italy, June 12–16, 2002
- 105. Conference on Differential Equations and Nonlinear Dynamics. University of Alberta, Edmonton, Alberta, Canada, July 7–12, 2002
- 106. SIAM Annual Conference, Invited Session on Shape Optimization, Philadelphia, July 8–12, 2002
- 107. Conference on PDE's and Optimization, Romanian Academy of Sciences, Constanza, Romania, September 10–14, 2002

- 108. Institut Mittag-Leffler, Semester on Mathematical Control Theory, Jan. 2003
- 109. Conference on Semigroups and Evolutions, Gargnano, Italy, March 31-April 4, 2003
- 110. 3rd International Conference on Engineering, Applications and Computational Algorithms, Guelph, Ontario, Canada, May 15–18, 2003
- 111. IIASA Workshop on Control of Distributed Systems and Environmental Applications, Laxenburg, Austria, May 26–18, 2003
- 112. Conference in honor of J. Lagnese, Washington, DC, May 29-June 3, 2003
- 113. 21st IFIP Conference on System Modeling and Optimization, invited session, Sophia Antipolis, France, July 21–25, 2003

- 114. 9th IEEE International Conference on Methods and Models in Automation and Robotics, Invited Session on Optimization of Infinite-Dimensional Systems, Miedzyzdroje, Poland, August 25–28, 2003
- 115. 4th ISAAC Congress (International Society for Analysis, Applications and Computations), Special Session on Inverse Problems, Toronto, Canada, August 11–16, 2003
- 116. 5th Congress of Romanian Mathematics, Pitesti, Romania, June 22–28, 2003

- 117. Workshop on Boundary Control and Optimization, Pisa, February 26–28, 2004
- 118. AIMS Conference on Differential Equations and Dynamical Systems, Los Angeles, CA, June 15–19, 2004
- 119. SIAM Conference on Nonlinear Waves and Coherent Structures, invited session, Orlando, Oct. 2–5, 2004
- 120. Workshop on Optimal Control of ODEs Conference, dedicated to Czeslaw Olech. Banach Center, Warsaw, Poland, September 1–5, 2004
- 121. IFIP Conference on Free an Moving Boundaries, Houston, Dec 2-4, 2004

### 2005

- 122. AMS Conference, Southeastern Section, invited session, Bowling Green, KY, March 2005
- 123. AMS Conference, Eastern Section, invited session, Newark, DE, April 2–3, 2005
- 124. Oberwolfach Conference on Optimal Control of Coupled Systems of PDE's, Oberwolfach, April 17–23, 2005
- 125. Workshop on Inverse Problems, Charlotte, NC, May 27–30, 2005
- 126. 5th ISAAC Congress, Catania, Italy, July 25–30, 2005
- 127. 22nd IFIP Conference on Modeling Optimization, Torino, Italy, July 17–21, 2005
- 128. AMS Summer Research Conference on Control Methods in PDE Dynamical Systems, Snowbird, Utah, July 3-7, 2005
- 129. Workshop on Boundary Value Problems, Computation and Control, UCLA, Los Angeles, CA, September 19–23, 2005
- Conference on Evolution Equations, Applications to Physics and Engineering, Luminy, France, October 24–28,
   2005
- 131. MMAR 2005–IEEE Conference, Miedzyzdroje, Poland, August 29–September 1, 2005

- 132. AIMS Conference on Dynamical Systems and Differential Equations, Special Session Infinite-Dimensional Dynamical Systems, Poitiers, France, June 25–28, 2006
- 133. AMS Conference, Special Session Harmonic Analysis and PDE's, Miami, FL, April 1–2, 2006
- 134. Fluids and Waves-Recent Trends in Applied Analysis, Memphis, TN, May 11–13, 2006
- 135. SIAM Conference on Analysis of PDE's, Invited Session on Structure Interactions with Fluid Gas Flows and Acoustical Waves, Boston, MA, July 10–12, 2006
- 136. IEEE-MMAR 2006, Miedzyzdroje, Poland, August 28-31, 2006
- 137. Evolutions Equations 2006, in memory of G. Lumer, Univ. of Mons, Mons, Belgium, August 28–September 1, 2006

- 138. International Conference on Differential Equations, dedicated to Y. Lopatinsky, Lviv, Ukraine, September 12–17, 2006
- 139. Workshop on PDE's, Rio de Janeiro, Brazil, September 12–15, 2006
- 140. Advances in Control of PDE's, in honor of the 70th birthday of T. Seidman, Univ. of Maryland, October 28–29, 2006

- 141. Workshop on Direct, Inverse and Control Problems for PDE's (DICOP), Rome, Italy, June 25–28, 2007
- 142. International Conference on Theoretical and Numerical Fluid Mechanical, in honor of P. Galdi, Vancouver, Canada, August 11–17, 2007
- 143. Conference on Functional Analysis and Optimization, Center of the Institute of Mathematics of the Polish Academy of Sciences, Bedlewo, Poland, September 17–21, 2007
- 144. Int. Conference on Inverse and Ill-Posed Problems of Mathematical Physics, dedicated to M. M. Lavrentev, Novosybirsk, Russia, August 20–25, 2007
- 145. Special Session at the SIAM-PDE Conference, Arizona, December 2007
- 146. AMS-NZM First Joint Meeting, Session on New Trends in Spectral Analysis and PDE, Wellington, New Zealand, Dec. 12–15, 2007
- 147. Workshop on PDE's, Rio de Janeiro, Brazil, September 1–7, 2007
- 148. Workshop on PDE's, University of Maringa, Maringa, Brazil, September 10–17, 2007

# 2008

- 149. MFO, Workshop on Optimal Control of Coupled PDE's, Oberwolfach, Germany, March 2–8, 2008
- 150. AMS Session on Harmonic Analysis and Fluids, Bloomington, April 5–8, 2008
- 151. 7th AIMS Conference on Dynamical Systems and Differential Equations, Arlington, TX, May 18–21, 2008
- 152. Int. Conference in Inverse Problems, Modeling and Simulations, Mugla, Turkey, May 28–30, 2008
- 153. Differential Equations and Topology, dedicated to L. S. Pontryagin, Moscow State Univ., June 17–22, 2008
- 154. Direct, Inverse and Control Problems in PDE's, Cortona, Italy, September 22–27, 2008
- 155. Workshop on Partial Differential Equations, organized by LNPC and UFRJ, Rio de Janeiro, Brazil, August 22–26, 2008
- MTNS (Mathematical Networks and Systems) 2008, Workshop on Classical PDE Control Studies, Blacksburg,
   VA, July 28-August 1, 2008
- 157. AMS Central Sectional Meeting, Special Session on Optimization and Variational Analysis, Kalamazoo, Michigan, October 17–19, 2008
- 158. 47th IEEE-CDC Conference, Invited Session Distributed Parameter Systems, Cancun, Mexico, December 9–11, 2008

- 159. International Conference on Nonlinear Parabolic Problems, in honor of H. Amann, Banach Center, Bedlewo, Poland, May 10–16, 2009
- 160. AMS Conference, Special Session on Nonlinear PDE's, San Francisco, May 25–27, 2009

- 161. 6th IMACS Intl. Conference on Nonlinear Evolution Equations and Wave Phenomena, Athens, Georgia, March 23–26, 2009
- 162. Review of AFOSR, Dynamics and Control Program, Washington, DC, July 15–18, 2009
- 163. 24th IFIP Conference, Invited Session on Stability and Error Analysis for Optimal Control Problems, Buenos Aires, Argentina, July 27–31, 2009
- 164. International Conference on Mathematical Control Theory, in honor of D. Russell. Chinese Academy of Sciences, Beijing, China, May 15–17, 2009
- 165. 7-th ISACS Congres, Invited Session on Nonlinear Evolutionary PDE's. Imperial College, London, July 13-17, 2009.
- 166. Summer School on Nonlinear Analysis, Federal University of Rio de Janeiro, August 2–8, 2009
- 167. SIAM PDE Conference, Miami, December 7-10, 2009
- 168. Conference in Honor of V. Lakshmikantham, Recent Advances in Mathematical Sciences and Applications, December 18-22, 2009, Mandurawada, India.

- 169. AMS Annual Meeting, Jan. 10-15,2010. Invited session Nonlinear Hyperbolic Equations and Control Systems in Physics and Engineering.
- 170. Winter School on Nonlinear Analysis and Control, , March 1-6, 2010, University of Maringa, Brazil.
- 171. Conference on Harmonic Analysis and PDE's, University of Nebraska, April 17-18, 2010.
- 172. 5th International Conference "Inverse Problems: Modeling and Simulation", Antalya, Turkey, May 24-29, 2010
- 173. 2010 American Control Conference (ACC) , June 30-July 2, 2010, Baltimore, Maryland, Invited Session "Estimation and Control of DPS".
- 174. AIMS Conference on Dynamical Systems and Differential Equations, May 25-31, Dresden, Germany. Special Session Qualitative Behavior of Dissipative Dynamical Systems.
- 175. Conference on Evolution Equations, October 11-15, 2010, Schmitten-Frankfurt, Germany
- 176. Workshop on Dynamical Systems, September 18-22, 2010, Edinburgh, Scottland.
- 177. Conference on Semigroups, Evolution Equations, and Boundary Conditions, University of Taubigen, Germany, July 1-3, 2010
- 178. Conference on PDE-s , Semigroup Theory and Inverse Problems, University of Bologna, Italy September 1 4, 2010
- 179. 1065-th AMS Meeting, (Invited Session: Differential Equations and Applications), University of Richmond, November 6-7, 2010
- 180. 49-th IEEE-CDC Conference, (Invited Session on Nonlinear Control), Atlanta, GA, Dec 15-17, 2010
- 181. Analysis Days, KFUPM, Dhahran, SA, Dec 21-23, 2010

- 182. 2011 AMS Annual Meeting, Invited Session on Fluid Structure Interactions , New Orleans, Luisiana, Jan 6-9, 2011
- 183. INDAM Workshop "Modeling and Control of Nonlinear Evolutions". Sissa, Trieste, May 24-27, 2011.

- 184. SIAM Conference on Control, Special session Optimal Control and Applications, Baltimore, MD, July 25-27, 2011.
- 185. Summer School: Linear and Nonlinear Evolutions, (Principal Lecturer), Koc University, Istambul, Turkey, June 27-July 31, 2011.
- 186. PDE-Belem. X Workshop on Partial Differential Equations and Applications, August 29-September 01, 2011.
- 187. 25-th IFIP TC7 Conference on Modeling and Control, *Invited Session*: Analysis and Control of Composite Systems, Berlin, Germany, Sept 12-16, 2011.
- 188. 25-th IFIP TC7 Conference on Modeling and Control, *Invited Session*: Evolution Problems and Optimal Control Berlin, Germany, , Sept 12-16, 2011
- 189. Workshop on Control and Optimization of PDE's, University of Graz, Austria, Oct 10-14, 2011,
- 190. Evolution Equations and Randomness, Bad Harrenhalb, Germany, October 10-14, 2011
- 191. SIAM Conference on Analysis of PDE's. Invited Session "Dissipative Systems and Attractors", San Diego, Nov 14-17, 2011.
- 192. Workshop on Optimal Control of PDE;s, Invited speaker In honor of F. Troltsch. Nov 27-Dec 03, Klaffenbach, Germany, 2011.
- 193. International Conference on Numerical Analysis and Optimization Theory, Plenary speaker. KFUPM, Dhahran, SA, December 17-22, 2011.

- 194. 2012 AMS Annual Meeting, Invited Session on Control of Biological Systems. Jan 4-7, 2012. Boston.
- 195. INDAM Workshop on Mathematical Models and Analytical problems in Special Materials. In honor of Mauro Fabritzio. Rome, April 16-20, 2012.
- 196. Conference on Variational Analysis and Applications, Erice, Sicily, May 14-22. 2012.
- 197. The Fifth International Conference on Inverse Problems, Golf Antalya, Turkey, May 24-29,2012.
- 198. AIMS Conference on Differential Equations and Dynamical Systems, *Invited Session on Mathematical Theory of Commpressible and Incompressible Fluids*. Orlando, Fla, July 4-5, 2012
- 199. AIMS Conference on Differential Equations and Dynamical Systems, *Invited Session on Nonlinear Evolutions with Interfaces*. Orlando, Fla, July 1-3, 2012
- 200. ICNPAA 2012 Congress on Mathematical problems in Engineering. (Plenary speaker), Vienna, July 9-14,2012.
- 201. Workshop on Inverse Problems, University of Bologna, Bologna, Italy, July 16-20, 2012.
- 202. Conference on Applied Analysis and Mathematical Biology (Plenary speaker), University of Delaware, NE August 8-9, 2012.
- 203. AFOSR Review Meeting, Washington DC, Hyatt Regency, August 6-9, 2012.
- 204. XI Workshop on PDE's, LNCC and UFRJ, Rio de Janeiro, August 28-31, 2012.
- 205. Workshop: Model Reduction in Continuoum Thermodynamics, BIRS, Canada, Sept 16-21, 2012.
- 206. Workshop on Aeroelasticity: Axial Air Flow. UCLA, November 20-21, 2012.
- 207. International Conference on the Theory, Methods and Applications of Nonlinear Equations, Kingsville, TX. Dec 17-21, 2012. (Plenary Speaker)

- 208. The 8-IMACS Conference on Nonlinear Evolution Equations and Wave Phenomena. Athens, GA March 25-28, 2013.
- 209. Workshop on Inverse Problems, Palazzo Cortona, Italy, June 17-21, 2013
- 210. Recent Advances in Partial Differential Equations and Applications , June 17-21, University of Milano, Italy, 2013 (Main Lecturer -series of 6 lectures).
- 211. Joint International Meeting of the AMS and the Romanian Mathematical Society in partnership with the Simion Stoilow Institute of Mathematics of the Romanian Academy, Alba Iulia, Romania, June 27-30, 2013
- 212. ANCNA Anatolian Communications in Nonlinear Analysis. Bolu, Turkey, July 306, 2013. (Main Speaker).
- 213. SIAM Conference on Control and Its Applications (CT13) July 8-10, 2013, in Town and Country Resort & Convention Center, San Diego, California, USA
- 214. ISAACS Congres, Special Session: Nonlinear Evolutions, Krakov, Poland, August 5-9, 2013.
- 215. AMS Mathematical Congress of the Americas, Guanajuato, August 5-9, 2013. Special Session "Control and Stabilization for Partial Differential Equations"
- 216. EQUADIFF 13, Prague, Czech Republic, August 26-30, 2013.
- 217. The 26th IFIP TC 7 Conference 2013 on System Modeling and Optimization Klagenfurt, Austria, September 9-13, 2013
- 218. 1st IFAC Workshop CPDE 25-27 September 2013, Institut Henri Poincari;ce Paris France
- 219. XII Workshop on PDE's. LNCCP Petropolis, Rio de Janeiro, Brazil, Sept 10-14, 2013.
- 220. Semigroups of Operators: Theory and Applications, Institute of Mathematics, Polish Academy of Sciences, Oct 6-11, 2013.
- 221. SIAM -PDE Conference, Invited Session-Fluid Structure Interactions. Orlando, December 7-11, 2013.

- 222. AMS Annual Meeting 2014- Invited SIAM Minisymposium on Recent Advances in Partial Differential Equations Modeling Physical Systems. Convention Center, Baltimore MD. January 15., 2014. -
- 223. AMS Conference, Invited Session on Nonlinear PDE's, , Knoxville , March 21-23, 2014.
- 224. Oberwolfach Workshop on Nonlinear Evolution Equations: Analysis and Numerics. March 16-March 22, 2014.
- 225. International Conference on Hyperbolic Problems, IMPA, Rio de Janeiro, July 28-August 1, 2014.
- 226. Workshop on Shape and Topology Optimization, LNCC MCT1, Petropolis-Rio de Janeiro, August 11-15, 2014.
- 227. Recent Trends in Nonlinear PDE's, NPDE 2014, Trieste, 28-30 May, 2014.
- 228. Conference on PDE, Novacella, Italy, May 29-June 1, 2014.
- 229. 10-th AIMS Conference on Dynamical Systems, Differential Equations. Special Invited Session: Nonlinear Evolutions PDE's and Interfaces. Madrid, Spain, July 7-July 11, 2014.
- 230. ICNPAA 2014 Congress, Narvik University, Norway, July 15-18, 2014.
- Inverse Problems and Control Theory, Conference in Memory of Alfredo Lorenzi, University of Bologna, September 15-19, 2014

232. IWH Symposium in Heidelberg on Simulation and Optimization of Extreme Fluids, November 10-12, 2014, Heidelberg, Germany

### 2015

- 233. Shanks Workshop on Mathematical Aspects of Fluid Dynamics, Vanderbilt University, February 28-March 1, 2015.
- 234. Plenary Speaker (one of four) at SIAM-SEAS 2015. March 20-25, 2015. University of Alabama.
- 235. Plenary speaker (one of three) at the Ninth IMACS Conference on Nonlinear Evolution Equations and Wave Phenomena. Georgia Center, University of Georgia, April 01-04, 2015
- 236. 7-th International Conference on Dynamic Systems and Applications. Atlanta, May 27-30, 2015.
- 237. From Open to Closed Loop Control, Mariatrost, Austria, June 22-26, 2015
- 238. New Advances in PDE's and Inverse Problems and Control Theory, Parma, July 6-10, 2015.
- 239. Invited Session at the IFIP TC7 Conference, Sophie Antipolis, FR, June 29-July 3, 2015
- 240. Conference on Bio-Fluids, University of Warsaw and Banach Center, April 27-29, 2015
- 241. Mathematical Fluid Mechanics:Old Problems, New Trends. Banach Center, Bedlewo, 30 August-5 September, 2015
- 242. XiV PDE Workshop-Rio. Workshop on PDE's. September 21-15, 2105. Petropolois, LNCC , Rio de Janeiro, Brasil.
- 243. SIAM-PDE Conference, December 7-11,2015, Scotsdale, Arizona,

### 2016

- 244. IMA (Institute of Mathematics and Applications) Workshop Computational Methods for Control of Infinite-Dimensional Systems, March 14-18,2016, University of Minnesota in Minneapolis
- 245. AMS Sectional Meeting, Stony Brook, March 18-19, 2016, Invited one hour address
- 246. International Conference on Evolution Equations, May 16-May 20, 2016, University of Vanderbilt, Nashville.
- 247. Conference on Dynamical Systems and Applications, Institute of Mathematics, Lodz, June 16-18, 2016
- 248. OCERTO 2016- Optimal Control for Evolutionary PDE's, Cortona, June 20-24, 2016.
- 249. Conference on "Nonlinear PDE's" in Applied Mathematics, Ismir Institute of Technology, Turkey, August 28-30, 2016.
- 250. Oberwolfach Seminar: Mathematics of Fluid-Flow Structure Interaction Problems, Oberwolfach, Germany, November 20-26, 2016. One of the 4 plenary speakers.

- 251. 2017 AMS Annual Meeting, Atlanta, January 4-7, 2017. Invited session .
- 252. The 19-th Polish Control Conference, June 18-21, 2017, Cracow, Poland. One of four plenary speakers.
- 253. Banff International Research Station, Control: New Trends in Infinite Dimensions, Banff, July 16-21. 2017. Organizer.
- 254. GPCO 2017-7-th German-Polish Conference on Optimization, Bedlewo, August 27-September 1m 2017, One of seven plenary speakers.
- 255. Workshop on Nonlinear PDE's, Ismir Institute of technology, August 8-11, 2017.

- 256. AMS Conference, Sept. 23-24, 2017, Orlando 2017. Invited Session.
- 257. Workshop on Dynamics, Control and Numerics for Fractional PDE's, Hilton, San Juan, Puerto Rico, October 23-25, 2017. Keynote lecture [one of seven]
- 258. SIAM PDE Conference, Baltimore, December 9-11, 2017. Invited session.
- 259. Conference on Recent Advances in Mathematical Sciences and Applications (RAMSA-17), at GVP College of Engineering, Visakhapatnam, India.19th to 22nd December, 2017. One of the Three Plenary Speakers.

- 260. Paths in Mathematical Control Theory, Torino, March 25-27, 2018. One of the Three Main Lecturers.
- 261. The Third International Conference on the Dynamics of Differential Equations-Fundamentals and Developments, In Memory of Professor Jack. K. Hale, Hiroshima, March 14-March 18, 2018. One of 40 min long lectures.
- 262. Emerging Trends in Applied Mathematics and Mechanics, Jagiellonian University, Kracov, Poland June 18-22, 2018. One of the four plenary speakers.
- 263. SMACS 2018-Special Materials and Complex Systems. Palazzo Feltrinelli, Garganano, Italy, June 18-22, 2018.
- 264. AMS Meeting -invited special session Nonsmooth Optimization and Applications, Portland State University, May 14-18, 2018.
- 265. Invited session on Control of PDE's, IFIP 28 Conference on Modeling and Optimization. Qualitative analysis and control theoretic properties of evolutionary partial differential equations. Essen Germany, July 24-27, 2018.
- 266. Semigroups of Operators, Theory and Applications -SOTA. Banach Center, Kazimierz Dolny, September 9-October 5, 2018.
- 267. Plenary speaker Dynamics of Dissipative PDE's Workshop, University of Surrey, Sept 10-14, 2018.
- 268. XVII Workshop on PDEÕs [invited 40 min long talk], LNCC, Petropolis-Rio de Janeiro, Brasil, September 11-14, 2018.
- 269. Invited speaker Oberwolfach Workshop: Numerical Analysis for Non-Smooth PDE Constrained Optimal Control Problems, Dec 16-Dec 22, 2018, Oberwolfach, Germany.
- 270. Workshop on Dynamics, Control and Numerics for Fractional PDE's, San Juan, Puerto Rico, Dec 4-8. 2018. Keynote lecture [one of six]

- 271. Invited talk "Flow Structure interactions", University of Vanderbilt, Department of Mathematics. February 28
- 272. AMS Invited Session on Control of Coupled PDE's systems, Auburn University, March 16-17, 2019.
- 273. Workshop on Fluid Structure Interactions, Milano, Italy March 19-224 [Key Note Lecture].
- 274. Workshop on Infinite Dimensional Control Theory, Rice University, April 6-7, Houston
- 275. PDE Workshop in honor of Prof. Racke, University of Constant, April 9-11, 2019.
- 276. Karen Ames Memorial Lecture, University of Alabama, Huntesville, April 19. 2019
- 277. Conference on Evolution Equations, May 6-10, Bad Herrenbald, Germany.
- 278. Workshop on Control Theory of PDE systems, NCState, Raleigh, May 13-15, 2019.

- 279. IFAC CPDE Conference, Oaxaca, Mexico, May 20-24 [Key note lecture].
- 280. Control Theory for Fluids- Technical University of Warsaw,. Series of 4 lectures, June 18-26, 2019.
- 281. Romanian Congress of Mathematics, July 28-August 3, 2019.[Plenary talk]
- 282. Conference on Differential Equations and Applications DEA -Krakov, Poland, September 16-20, 2019
- 283. XVIII Workshop in PDE, Rio de Janeiro [Petropolis-LNC], September 10-13, 2019.
- 284. Conference in Honor of Matthias Hieber, CNR Center, Luminy Oct 28-Nov 1, 2019, France.
- 285. Conference in honor of Jaime Rivera, Maringa, Brasil, October 16-18.
- 286. SIAM Conference, Talk in the Invited Session, Iowa State University, Ames, October 20, 2019.
- 287. SIAM PDE Conference, Invited talk, La Quinta, December 11-14, 2019.

- 288. AUS-ICMS 20-Conference on Mathematics and Statistics, Session on PDE's, Sharjah, UE, February 6-9, 2020. Main Speaker.
- 289. AppliedMath2020, Brijuni Islands, Croatia, September 14-18, 2021. Plenary Speaker.
- 290. Conference on 'New Challenges in Operator Semigroups' August 3–7, 2020, in Oxford (UK). In honor Of Charles Batty's retirement. Postponed till 2021.**Plenary Speaker**.
- 291. 13-th AIMS Conference on Dynamical Systems, Differential Equations and Applications. Atlanta, June 5-9, 2021. **Invited speaker** of Special Session: Interactive PDE Systems.
- 292. Series of virtual lectures [short course] at the 2-nd Summer Workshop on PDE and Dynamical Systems, Henan University, July 15-19, 2020.
- 293. Plenary talk at the Inauguration of the Center for Dynamical Systems, Henan University, Henan, China, July 22, 2020.
- 294. Summer School: "Fluids and Control", Czech Academy of Sciences, Prague, August 24-28, 2020, Plenary speaker-postponed till 2021.
- 295. International Video-worhshop om Infinite Dimensional Dynamical Systems. Donghua University- Shanghai. China. Sepember 12-19, 2020 **one of 8 plenary Speakers**. .
- 296. AMS Regional Conference in Chattanooga, **Plenary Speaker** [45 min] at the invited virtual session *Modern Analysis*, October 10-11, 2020.

- 297. Plenary speaker at the MSRI Workshop Recent Developments in Fluid Dynamics, April 12-April 23, 2021.
- 298. Main Speaker Seminario Matematico e Fisico di Milano, February 1, 2021.
- 299. Invited virtual lecture at the virtual Workshop Control in Times of Crisis [CTC] organized by the University of Bordeaux [France] and University of Sevilla [Spain] February 25, 2021.
- 300. Invited Virtual Lecture: Seminario de EDP Matematica Applicada, March 24,2021.Maringa, Brasil
- 301. Invited virtual lecture at the Workshop on Theory of Control Theory and Partial Differential Equations, May 24-28, 2021.
- 302. Invited virtual presentation at the 2021 ACC [Automatic Control Conference] in New Orleans, May 26-28, 2021.

- 303. 2021 SIAM Conference on Control, Invited session: Control and Optimization in Differential Equations, July 19,2021.
- 304. IWOTA 2021, **Plenary Speaker**, Chapman University, International Workshop on Operator Theory and its Applications. August 9, 2021.
- Summer School- Main Lecturer-4 Lectures, Fluids and Control Czech Academy of Sciences, August 21-27, 2021.
- 306. XII Forum of Partial Differential Equations, Bedlewo, Polish Academy of Sciences, September 19-25, 2021.

# X(c) Colloquium talks

Scuola Normale Superiore, Analysis Department, Pisa, Italy, June 1984

University of Bologna, Mathematics Department, Bologna, Italy, June 1984

Scuola Normale Superiore, Pisa, Italy, June 15–July 30, 1985

International Institute for Applied Systems Analysis (IIASA), Laxenburg, Austria, July 1986

Scuola Normale Superiore, Pisa, Italy, June 10–30, 1986

University of Paris IX, Mathematics Department, Paris, France, June 1987

Carnegie Mellon University, Mathematics Department, Pittsburgh, PA, Jan. 1987

University of Zürich, Mathematics Department, Zürich, Switzerland, July 9–15, 1987

Scuola Normale Superiore, Pisa, Italy, July 15–30, 1987

University of Maryland, Mathematics Department, College Park, MD, Oct. 1988

Virginia Polytechnic Institute, Mathematics Department, March 1988

University of Cincinnati, Mathematics Department, May 1988

Georgetown University, Mathematics Department, Nov. 1988

Scuola Normale Superiore, Pisa, Italy, July 1988

Cornell University, Seminar on Microlocal Analysis, MIS, Nov. 1988

Scuola Normale Superiore, Pisa, July 1989

University of Bologna, Mathematics Department, Bologna, Italy, July 1990

University of Kansas, Department of Mathematics, Lawrence, KS, April 1991

University of Bologna, Department of Mathematics, Bologna, Italy, June 1991

Scuola Normale Superiore, Pisa, July 1991

Virginia Polytechnic Institute, ICIAM Center, Blacksburg, VA, Nov. 1991

University of Kansas, Department of Mathematics, Lawrence, KS, Dec. 1991

IIASA Institute, series of four lectures, Laxenburg, Austria, Aug. 1991

University of Maryland, Department of Mathematics, College Park, MD, April 17, 1992

Scuola Normale Superiore, Pisa, Italy, July 1992

University of Bologna, Department of Mathematics, Bologna, Italy, June 1992

University of Trento, Department of Mathematics, series of five lectures, Italy, Oct. 1992

University of Pavia, Department of Mathematics, Pavia, Italy, Nov. 26, 1992

University of Torino, Department of Applied Mathematics, Italy, July 1992

University of L'Aquila, Department of Mathematics, Italy, Dec. 5, 1992

University of Trento, Department of Mathematics, Italy, Jan. 1993

University of Torino, Department of Mathematics, Torino, Italy, July 3, 1993

University of Bologna, Department of Mathematics, series of six lectures, Bologna, Italy, June 1993

Scuola Normale Superiore, Pisa, Italy, July 20–25, 1993

University of Jyvaskyle, Department of Mathematics, series of 10 lectures, Finland Aug. 15–28, 1993

Polish Academy of Sciences, Institute of Fundamental Problems in Technology, Warsaw, Aug. 5, 1993

Wright State University, Department of Mathematics, April 1994

RPI, Department of Mathematical Sciences, Troy, NY, May 2, 1994

CNR, IAC, Rome, Italy, June 1994

Scuola Normale Superiore, series of lectures, Pisa, Italy, July 1995

Wichita State University, Department of Mathematical Sciences, April, 1996

Scuola Normale Superiore, series of lectures, Pisa, Italy, June–July 1997

University of Nebraska, Mathematics Department, Lincoln, NE, Oct. 1997

Seoul National University, Mathematics Department, Korea, June 1998

Scuola Normale Superiore, July 1998

Texas Tech, University, Mathematics Department, Lubbock, TX March 2000

Univ. of Firenze, Firenze, Italy, May 2002

Univ. of Brescia, Bresia, Italy, May 2002

Scuola Normale Superiore, Pisa, Italy, Feb-June 2002

Univ. of Maryland, October 25, 2003

Wayne State University, Detroit, MI, March 7, 2005

University of Nebraska, Lincoln, NE, March 2007

Michigan State University, MI, April 2007

UCLA, Los Angeles, October 2007

Scuola Normale Superiore, March 2008

University of Nebraska, March 2009

University of Zurich, Department of Mathematics, Zurich, Switzerland. January, 2010.

Tata Institute, School of Mathematics, Bangalore, India, January 2010.

Kent State University, February 2010.

University of Prague, Department of Mathematics, Prague, Czech Republic. 2010.

University of Berlin, Department of Mathematics, Germany, 2010

University of Nebraska, Lincoln, 2010

University of Warsaw, Poland, May-June, 2010

Weiestrass Institute, Berlin, Germany, December 2010.

Eli Cartan Institute, L' Universite de Nancy, Nancy, France December 2009.

L'Universite de Nice and L'Ecole de Mines, Sophia Antipolis, Nice, France, 2010

University of Graz, Austria, 2010.

Institute of Mathematics, Polish Academy of Sciences, Warsaw, June 2010.

King Fahd University (KFUPM), Dhahran, KSA, December, 2011

Rutgers University, New Brunswick, NJ, March 2011

University of Memphis, Department of Mathematics, April 2012.

University of Maringa (UEM) and UFRJ (Univ. Federal Rio de Janeiro), Brazil, August-September 2012.

University of California, UCLA, November, 2012

University of Warsaw, Department of Mathematics, October 2012.

University of Southern California, USC, Los Angeles, CA Fall 2013.

University of Maryland, College Park, MD, April 30, 2014.

University of Kansas, December , December 2013.

Institute of Mathematics, Polish Academy of Sciences, December 2014.

Department of Mathematics, University of Parma, Italy, July 2015.

Institute of Mathematics, Polish Academy of Sciences, December 2015.

Department of Mathematics, University of Maringa, Brasil, May 2016.

Department of Mathematical Sciences, Florida Institute of Technology, November 2017.

Department of Applied Mathematics, Politechnico di Milano, March 28, 2018.

Department of Mathematics, University of Nebraska, Lincoln, Oct 10-12,2018

Department of Mathematics, Vanderbilt University, Nashville, February 28, 2019.

Department of Mathematics, University of Alabama, Huntseville, Dr. Karen Ames Memorial Lecture, April 18, 2019.

Institute of Mathematics, Technical University of Warsaw, Series of four lectures, June 18-26, 2019.

Department of Mathematics, University of Alabama, Birmingham, January 23, 2020.

Seminario Matematico e Fisico, University of Milano, Italy, February 1, 2021.

•