

Irena Lasiecka is the laureate of the Main Prize of the PTM Hugo Steinhaus for the year 2021



Irena Lasiecka ^[1] (photo) from the University of Memphis, USA received the Main Prize of the PTM Hugo Steinhaus 2021 for his contribution to the development of the mathematical foundations of control theory for models with distributed parameters and their applications in continuum mechanics and technology.

kj / 02-04-2022

Justification of the jury's decision .

Professor Irena Lasiecka is a world-class specialist in control theory and its applications in continuum mechanics and technology. She is the author of twelve monographs and over three hundred scientific articles. According to MathSciNet, her work has been cited 8363 times, making her one of the most cited mathematicians worldwide.

Her scientific research concerns the theory of optimization and control of models described by partial differential equations. The applications of mathematical methods developed by her are used to investigate such practical issues as:

- elimination of vibrations in continuous media modeling buildings, bridges or airplanes;
- elimination of noise in acoustic chambers modeling concert halls;
- non-invasive ultrasound control in radiology.

The laureate's contribution to the development of the theory of infinite dimensional

dynamical systems in Banach spaces in connection with the analysis of non-standard initial-boundary problems occurring in advanced problems of technology deserves special emphasis.

Irena Lasiecka's research was often financed by non-mathematical grants, including Air Force Office of Scientific Research and Army Research Office.

The importance of her research is evidenced by prestigious awards from international organizations dealing with the application of mathematics: SIAM Reid Prize and Richard E. Bellman Control Heritage Award, as well as honorary membership of the Institute of Electrical and Electronics Engineers (IEEE).

Source URL: <https://www.ptm.org.pl/zawartosc/irena-lasiecka-laureatk%C4%85-narzenia-g%C5%82%C3%B3wnej-ptm-im-hugona-steinhausa-za-year-2021>

Links:

[1] <https://www.memphis.edu/msci/people/lasiecka.php>
