

Leonid Berlyand

Professor of Mathematics and a member of the Materials Research Institute and the Huck Institute of Life Sciences at the Pennsylvania State University, University Park, PA, 16802 USA

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Education:

- Ph.D. in Mathematics, Kharkiv State University, Ukraine, 1984.
- B.S./M.S. in Mathematics, Kharkiv State University, Ukraine, 1979.

Academic employment:

- July 2003–present, Professor of Mathematics, Department of Mathematics, The Pennsylvania State University
- July 2000–July 2003, Associate Professor of Mathematics, Department of Mathematics, The Pennsylvania State University
- Aug. 1993–July 1999, Assistant Professor, Department of Mathematics, The Pennsylvania State University
- July 1991–July 1992, Visiting faculty, Department of Mathematics, The Pennsylvania State University
- Summer 1992, Visiting Scientist, Department of Geoacoustics, Schlumberger–Doll Research, Ridgefield, Connecticut
- Spring 1991, Visiting Research Professor, Institute for Mathematics and Applications, University of Minnesota, Minneapolis, Minnesota
- 1986–1991, Senior Research Scientist, Dept. of Mathematics, Institute of Chemical Physics at USSR Academy of Sciences

Research interests

- Mathematical modeling of active matter
- Homogenization theory, multiscale analysis and continuum limits
- Nonlinear PDE/variational problems in Biology and Materials Science
- Mathematical foundations of deep learning
- Random media and disordered materials

Administrative duties at PSU:

- One of the two founding co-Directors of PSU Center for Mathematics of Living and Mimetic Matter.
- One of the two founding co-Directors of PSU Center for Interdisciplinary Mathematics.
- Member of advisory board and the board of directors for The Huck Institute of Life Sciences

Selected Academic Honors and awards:

- The Humboldt Prize recipient "in recognition of lifetime's research achievements, for internationally renowned scientists whose fundamental discoveries, new theories or insights have had a significant impact on their own discipline and who are expected to continue producing cutting-edge academic achievements in the future" (2021)
- Honorary Professor (Professoris Honoris Causa) of the Moscow State University "for his important contribution to Applied Mathematics and Mathematical Physics" (2017)
- C.I. Noll Award "presented annually to an outstanding faculty member within the Eberly College of Science, the award is designed to recognize a faculty member who has had a positive impact on students", Penn State University (2004)
- Research awards from leading funding agencies in the USA, such as National Science Foundation, US Department of Energy, & National Institute of Health as well as international agencies (Bi-National USA-Israel Science Foundation and NATO).
- Co-authored two books and more than 100 publications.

Long-term visiting positions include:

- College de France, Paris
- Princeton University, Princeton, New Jersey
- California Institute of Technology, Pasadena, California
- University of Chicago
- Max-Planck Institute for Mathematics in the Sciences, Germany
- Shanghai Jiao Tong University, China
- Sorbonne University, Paris 6, J.-L. Lions Lab, France
- Argonne National Lab, Chicago.
- University of Lyon 1, France
- Los Alamos National Lab, Los Alamos, New Mexico
- IMA (Institute for Mathematics and Applications), University of Minnesota, Minneapolis.

Editorship

- Managing Editor of Networks & Heterogeneous Media (2006-present)
- Associate Editor of SIAM/ASA Journal on Uncertainty Quantification (2013-2016)
- Member of Editorial board of International Journal for Multiscale Computational Engineering (2003-present)