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**Education**

- 1999-2004 Master's degree with honours, Theoretical Physics Department, Kaliningrad State University
- 2004-2007 Ph.D. degree in the Theoretical Physics Department, I. Kant State University, Kaliningrad

Research and Professional Positions Held in Chronological Sequence

- 2020- Associate Principal Investigator, Institute of Biomedical Engineering and Nanomedicine, National Health Research Institutes
- 2015/02- Head of the Laboratory: Biomedical Simulation Laboratory, National Health Research Institutes
- 2020- Associate Professor (Joint Appointment), National Taiwan University, Department of Engineering Science and Ocean Engineering
- 2020- Associate Professor (adjunct), National Chung Hsing University, Graduate Institute of Biomedical Engineering, Research Center in Tissue Engineering and Regenerative Medicine
- 2024/06- Associate Professor (Joint Appointment), National Taiwan University, Department of Biomedical Engineering
- 2015/02-2019 Assistant Principal Investigator, Institute of Biomedical Engineering and Nanomedicine, National Health Research Institutes
- 2016/02-2019 Assistant Professor (Joint Appointment), National Taiwan University, Department of Engineering Science and Ocean Engineering
- 2016/09-2019 Assistant Professor (adjunct), National Chung Hsing University, Graduate Institute of Biomedical Engineering, Research Center in Tissue Engineering and Regenerative Medicine
- 2012-2015/02 Research Associate, National Taiwan University, Taida Institute for Mathematical Sciences (TIMS), Center for Advanced Study in Theoretical Sciences (CASTS)
- 2011-2012 Postdoctoral Research Fellow, National Taiwan University, Taida Institute for Mathematical Science (TIMS), Center for Advanced Study in Theoretical Sciences (CASTS)
- 2009-2011 Postdoctoral Research Fellow, National Taiwan University, Department of Engineering Science and Ocean Engineering

2008-2009 Associate Professor (Docent), Theoretical Physics Department, I. Kant State University

2005-2008 Assistant Professor of Theoretical Physics Department, I. Kant State University

Research Interests

1. High intensity focused ultrasound, nonlinear acoustics
2. High Performance Computing on multiple GPUs and CPUs, computational fluid dynamics
3. Machine Learning, thermal treatment of liver tumor: modeling, simulation and measurement
4. Statistical physics, kinetic gas theory, Boltzmann equation
5. Nano-channel flow modeling, ion channels
6. Multiphysics multiscale modeling for biomedical applications

Major Honors and Awards

- 2022 Outstanding Young Scholar Research Project Award, Ministry of Science and Technology
- 2022/08 Cover page of Nanoscale (journal published by Royal Society of Chemistry)
- 2022 Young Scientist Award, National Health Research Institutes
- 2022/01 Editor's Pick for paper in Physics of Fluids
- 2014 Paper in Journal of Computational Surgery – most read paper all time
- 2014/10 Young Investigator Award at 1st Global Conference on Biomedical Engineering (GCBME 2014) and 9th Asian Pacific Conference on Medical and Biological Engineering (APCMBE 2014), Tainan, Taiwan
- 2014 Best Paper Award at 21th National Computational Fluid Dynamics Conference, Taiwan, August 2014
- 2013 Best Research Paper Award for Young Researcher by National Science Council (now it is renamed as Ministry of Science and Technology)
- 2012 the paper was among Top 20 most download AIP papers in June, 2012
- 2012-2014 Who's Who in the World - 2013, 30th Edition and 2014, 31st Edition
- 2011 ICU grant to attend International Congress on Ultrasonics, Poland
- 2010 ICA Young Scientist Grant to attend 20th International Congress on Acoustics, Sydney
- 2006/09 The best report of a young researcher at the section "Atmospheric acoustic" at XVIII Session of the Russian Acoustical Society
- 2006-2007 Scholar of the President of the Russian Federation
- 2002-2004 Scholar of city administration
- 2001 Winner of the Olympiad among institutes of higher education (Universities) at Engineering Mechanics