



Curriculum Vitae Professor Dr Grigory E Volovik

Name: Grigory E. Volovik

Born: 7 September 1946

Research Priorities: Solid state physics, astroparticle physics, low-temperature physics

Grigory E. Volovik is a theoretical physicist. His research focuses on solid state physics and the connections of astroparticle physics and solid state physics.

Academic and Professional Career

- Professor emeritus, Aalto University, Espoo, Finland
- since 1993 Professor, Low Temperature Laboratory, Helsinki University of Technology (today: Aalto University), Espoo, Finland
- since 1992 Head Scientist, Landau Institute for Theoretical Physics, Chernogolovka, Russia
- 1981 Habilitation, Physics, Landau Institute for Theoretical Physics, Chernogolovka, USSR
- 1973 PhD in Physics, Landau Institute for Theoretical Physics, Chernogolovka, USSR
- 1973 Researcher, Landau Institute for Theoretical Physics, Chernogolovka, USSR
- 1970 Diploma in Physics, Moscow Institute of Physics and Technology, Moscow, USSR

Functions in Scientific Societies and Committees

- 2003 - 2006 Head, Programme “Cosmology in the Laboratory – COSLAB”, European Science Foundation – Science Connect, Strasburg, France

Project Coordination, Membership in Scientific Research Projects

- 2020 - 2024 Member, Project "WEYLFLUID: Weyl and flat-band fermions in topological superfluids", Department of Applied Physics, Aalto University, Espoo, Finland
- 2016 - 2022 Principal investigator, Advanced Grant „TOPVAC: From Topological Matter to Relativistic Quantum Vacuum“, European Research Council (ERC)
- 2015 - 2017 Member, Project „Centre of Excellence in Low Temperature Quantum Phenomena and Devices“, Department of Applied Physics, Aalto University, Espoo, Finland
- 2010 - 2011 Member, Project "CoE on Low Temperature Quantum Phenomena and Devices", Department of Applied Physics, Aalto University, Espoo, Finland

Honours and Awarded Memberships

- 2014 Lars Onsager Prize, American Physical Society (APS), USA
- since 2007 Member, German National Academy of Sciences Leopoldina, Germany
- 2004 Simon Memorial Prize, Institute of Physics, London, UK
- since 2001 Member, Finnish Academy of Science and Letters, Helsinki, Finland
- 1992 Landau Gold Medal, Russian Academy of Sciences, Russia

Research Priorities

Grigory E. Volovik is a theoretical physicist. His research focuses on solid state physics and the connections of astroparticle physics and solid state physics.

In the area of low-temperature physics, Grigory E. Volovik is dedicated to the role of symmetry and its applications in cosmology, quantum gravity, quantum field theory and particle physics. He studies quantum liquids at low temperatures, such as liquid helium, as well as unconventional superconductors, for example in systems of heavy fermions.

Grigory E. Volovik works on the physics of glasses and liquid crystals, quantum turbulence, the intrinsic quantum Hall effect, and coherent states in Larmor precession. In the field of solid-state physics, he proposed novel experiments to study phenomena in analogy to phenomena in quantum field theory and astrophysics.