

Gregory Falkovich

Israel Pollak Professor of Theoretical Physics

Physics of Complex Systems, Weizmann Institute of Science, Rehovot 76100 Israel

PERSONAL DATA

Born June 15, 1958, Tomsk, Russia. Married +3.

Webpage: <http://www.weizmann.ac.il/complex/falkovich/><https://www.youtube.com/@GregoryFalkovich58>**RESEARCH INTERESTS**

Theoretical physics, statistical physics, fluid mechanics, information theory, solid state physics, cloud physics, science history.

EDUCATION

1984: Ph.D in Physics and Mathematics, Nuclear Physics Inst., Novosibirsk

1981: M.Sc. in Physics cum laude, Novosibirsk State University

EMPLOYMENT HISTORY

2002-pres: Professor; 1996-2002: Associate Professor; 1992-1996: Senior Scientist; WIS.

2004-2010: Department Head, Physics of Complex Systems, WIS.

1991-1992: Visiting Scientist, WIS.

1987-1992: Senior Research Fellow, 1985-1987: Research Associate,

1982-1985: Junior Research Associate, 1981-1982: Postgraduate,

Institute of Automation and Electrometry, USSR Ac. Sci., Novosibirsk.

sabbatical leaves:

1997, 2002-2003: Institute for Advanced Study (IAS), Princeton, USA

2000, 2011, 2014: Institute of Theoretical Physics, UC Santa Barbara, USA

2022: Harvard, NYU.

visiting professorships:

1998, 2012: Ecole Normale superieure, Paris; 1999: Nice observatory and IHES, France.

2000, 2013, 2015 : Rutgers University, USA. 2001: Max Planck Inst, Dresden, Germany.

2005, 2006, 2015: Aston University, UK.

2008: University of Chicago and Argonne National Lab, USA.

2010, 2011: Ecole Normale Superieure, Lyon, France

2014, 2017, 2020, 2022, 2023, 2024, 2025: Simons Center, Stony Brook, USA

2024-25 NYU, Caltech

OTHER APPOINTMENTS:

Head of Scientists Union at the Weizmann Institute of Science 2014-2022.

Divisional editor of Phys. Rev. Lett. 2013-2019.

Referee: ANR (France), BSF (USA-Israel), EPSRC and NERC (UK), ERC, Europhysics Letters, FNRS (Belgium), FWF (Austria), Italian Committee of Research Evaluation, Journal of Atmospheric Science, Journal of Fluid Mechanics, Meteorologische Zeitschrift, NASA, Nature, Nature Physics, Nuclear Physics, NSF (USA), Physica D, Physical Review Letters, Physical Review, Physics of Fluids, Swiss NSF, PRACE (Italy).

Conference organization: Wave Turbulence — advisor (USA, 2000), Les Houches Summer School — co-director (France, 2000), Waves and Wave Turbulence — advisor (Denmark, 2001), GEOMIX Summer School — program committee (France, 2001), Turbulence Workshop — program committee (USA, 2003), ICTP Summer School and Conference — co-director (Italy, 2003), "Turbulence and Mixing" Workshop — co-organizer (Eilat, 2004, 2007, 2010), Aspen program "Novel approaches to climate" — co-organizer (USA, 2005), EGU General Assembly — session convener (Vienna, 2007, 2008), KITP Program "Physics of Climate Change" — co-organizer (USA, 2008), Turbulence and Stat Mechanics - Sci Committee (Les Houches, 2009), International Symposium on Turbulence - Advisory Committee

(Peking, 2009), ICTP Advanced Workshop on Anderson localization and turbulence - co-director (Trieste, 2010), KITP Program "The nature of turbulence" — co-organizer (USA, 2011), Rainfall and Marine Snow — co-organizer (Leiden 2014), Simons Center Program (USA, 2017), Simons Fest - co-chairman (New York 2018), SRITP Program on Fluids (Israel, 2018), Universal features of turbulence (France 2019) Turbulence Program - director (Simons Center for Geometry in Physics, 2026).

Graduate Teaching 2020-2025 (Weizmann, NYU, Harvard, Caltech, Skoltech, High School of Economics): Quantum Information, Fluid Mechanics, Statistical Physics, Introduction to Information Theory, Turbulence Theory.

RESEARCH GRANTS (last 5 years, my share):

Israel Science Foundation: *2024-28* Wave Turbulence, 240,000\$; *2019-2024* Stokes flows of Newtonian and viscoelastic fluids, 300,000\$.

EU H2020: *2018-22* Hydrodynamic approach to light turbulence, 60 000 euro; *2019-23* Hydrotronics, 80 000 euro.

Simons Foundation *2019-23* Revisiting turbulence problem, 1 000 000 \$.

BSF-NSF *2021-2024* Rotating quantum gases, 200 000 \$.

BSF *2025-2028* Wave turbulence in different environments, 110 000 \$.

INTERNATIONAL RECOGNITION:

Awards:

1983: Excellence Prize of the USSR Ac. Sci.

1984: Award of the USSR Ac. Sci. Siberian Division.

1992: Guastalla Fellowship at the Weizmann Institute.

1994: Walter and Elise Hass Career Development Chair.

1996: Levinson Prize in Physics, Weizmann Institute.

2005: elected Fellow of the Institute of Physics, London.

2005-2007: Leverhulme Visiting Professorship, UK

2009: selected as an outstanding referee of APS.

Advisor: Royal Swedish Academy of Sciences, Hong Kong Research Grants Council, Grant review committee of Italian Ministry of Education, Universities and Research, Max Planck Society.

Recent invited colloquia (2020-2025):

UC Berkeley (twice), MIT (twice), Harvard, Princeton University, CUNY Stony Brook, CUNY Graduate Center, University of Virginia, Perimeter Institute, Nordita, UCSD, Alba Nova University, TAMU, Technion, Hebrew University (see webpage for some videos).

Supervision: 6 PhD students, 8 MSc students, 12 postdocs.