

Dr. Ilya Tsvankin

University Distinguished Professor

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Curriculum Vitae

Education

Moscow State University, Ph.D. in Geophysics 1978 – 1982
Moscow State University, B.S. and M.S. in Exploration Geophysics 1973 – 1978

Professional Experience

Colorado School of Mines, Golden, CO 1992 – present
Professor, Department of Geophysics (Associate Professor from 1992 – 99)
Co-Leader, Center for Wave Phenomena (Director from 2004 – 2008, 2018 – 2021)
Amoco Production Company, Research Center, Tulsa, OK 1990 – 1992
Consultant
Institute of Physics of the Earth, Moscow, Soviet Union 1978 – 1989
Deputy Head of Laboratory (1986 – 1989), Research Scientist (1978 – 1986)

Professional Memberships

Society of Exploration Geophysicists, European Association of Geoscientists and Engineers, American Geophysical Union, Denver Geophysical Society, Sigma Xi.

Professional Activities

Society of Exploration Geophysicists (SEG): Member of the Translations Committee (since 1992; chair from 1999 – 2004) and Research Committee (since 1995).

Instructor of the SEG Continuing Education Course “Seismic anisotropy: Basic theory and applications in exploration and reservoir characterization” (since 2002).

Member of the Editorial Board, *Journal of Seismic Exploration* (since 2005).

Associate Editor for Translations of the journal *Geophysics* (1999 – 2004). Associate Editor of the special sections of *Geophysics* “Azimuthal dependence of P-wave seismic signatures” (1999) and “Seismic anisotropy” (2009, 2017). Associate Editor of the special issue of *Geophysical Prospecting* “Advances in seismic anisotropy” (2019).

Editor of the book by A. Rüger “Reflection coefficients and azimuthal AVO analysis in anisotropic media” (SEG, 2002).

Editor of the English/Russian and Russian/English Dictionary of Exploration Geo-

physics, Mining Academy Publishers, Moscow, 1997 and 2001 editions, 477 p.

Chaired numerous sessions at SEG Annual International Meetings (since 1993). Organizer and chair of the workshop “Azimuthal dependence of P-wave seismic signatures” at the 67th SEG Annual Meeting (1997). Member of the Technical Program Committee and Key Contact for Anisotropy, SEG Annual Meetings (2010, 2016).

Member of the Organizing and Technical Program Committees at several International Workshops on Seismic Anisotropy (IWSA; 1986–2021). Chair of the Organizing Committee of the 13IWSA, Winter Park, Colorado (2008).

International Association of Seismology and Physics of the Earth’s Interior (IASPEI): Member of the Committee on Wave Propagation (1992–96).

CSM committees (after 2015): Faculty Handbook Committee (2012–17; 2022–present), Promotion & Tenure Committee of Geophysics Department (Chair; 2008–present), Graduate Advisory Committee of Geophysics Department (1998–2023; Chair 2000–04), Undergraduate Advisory Committee of Geophysics Department (2023–present).

Gave numerous invited talks and lectures at universities, companies and meetings of professional societies.

Principal investigator on research projects funded by the U.S. Department of Energy, Army Research Office, RPSEA, Petroleum Research Fund of the American Chemical Society, Petroleum Institute of Abu Dhabi, KAUST, and oil and service companies.

Scientific Research

Author of three books and more than 175 scientific papers on seismic wave propagation and methods of seismic exploration. Research interests have focused on modeling, processing and inversion of seismic data from anisotropic media, fracture characterization, nonlinear seismic phenomena, and seismological methods based on surface and nongeometrical waves. Received patents for new methods of seismic exploration in the U.S. and former Soviet Union. Co-leader and former director of the Center for Wave Phenomena, a major research consortium supported by hydrocarbon exploration companies and several agencies and organizations.

Major Awards

University Distinguished Professor, Colorado School of Mines (2022).

Outstanding Educator Award of the Society of Exploration Geophysicists (2020).

Honorary Membership Award of the SEG (2015).

Virgil Kauffman Gold Medal Award of the SEG (1996).

Elected a Fellow of the Institute of Physics (2011).

Best Paper in *Geophysics* Award of the SEG (2009).

Honorable Mention for Best Paper in *Geophysics* Award of the SEG (1999, 2002).

Shell Faculty Fellow, recipient of Shell Faculty Career Initiation Grant (1996–99).