

Candidate for IUGS Nominating Committee

Name: Irina M. Artemieva

Affiliation: Section of Marine Geodynamics,
GEOMAR Helmholtz Center for Ocean Research,
Wischofstr. 1 - 3, Kiel 24148, Germany



Biography:

Irina Artemieva's research embraces various disciplines of geophysical and geochemical studies of the lithosphere globally with focus on global and regional structure of the Earth's crust and the lithosphere with the time coverage spanning from the Archean Earth to modern collisional tectonics, back-arc basins and oceanic lithosphere, thermal and compositional heterogeneity of lithosphere mantle, lithosphere formation and secular evolution, and such diverse topics as lithosphere control on mineralization and melting of the ice sheets in Greenland and Antarctica. Her first-authored paper on the thermal state of the continents from 2001 is one of the highest cited publications on the lithosphere, and her publication record counts mainly high-impact sole- and first-authored papers on key questions in geodynamics and plate tectonics. A characteristic of these papers is, that they usually integrate an unusually broad suite of complementary methods into the interpretations. Irina Artemieva is the author of the ca 800 pages research monograph "The lithosphere: An interdisciplinary approach" published by Cambridge University Press in 2011. The monograph presents a synthesis of our current state-of-knowledge in lithosphere studies based on a full set of geophysical methods complemented by petrologic and laboratory data on rock properties.

As sole principal investigator of academic research projects in geophysics, Artemieva has raised since 2005 more than 3 million euro in open peer-review calls and she has also served as consultant to the world-leading diamond exploration companies. Artemieva was elected member of Academia Europaea and the Royal Danish Academy of Sciences and Letters, and Fellow of the Geological Society of America. In 2021, Artemieva has been awarded a highly prestigious Augustus Love Medal of the European Geosciences Union "for her outstanding research contributions to our understanding of the complex processes that control the evolution, thermal structure, stability, and dynamic topography of the continental lithosphere".

Irina Artemieva has been employed as Associate Professor in the Uppsala University, Sweden, followed by her work in EOST of the Strasbourg University,

France. She later worked as Senior Researcher at United States Geological Survey in Menlo Park, CA and as Associate Professor in the University of Copenhagen. In 2010 Artemieva was one of six winners of the open-call Freja Grant of the University of Copenhagen in Natural Sciences, and later won the position of Professor of Geophysics in the open call of the University of Copenhagen. In 2019-2020 Artemieva was visiting professor in the Stanford University, CA (USA). She moved in 2020 to the GEOMAR Helmholtz Centre for Ocean Research (Kiel, Germany) and was later invited by the Chinese Academy of Geological Sciences as Distinguished Professor to the SinoProbe National Laboratory, followed by her earlier affiliation as Distinguished Professor with the China University of Geosciences (Wuhan).

Irina Artemieva has held leadership positions in large-scale international science organizations and programs. She was Science Coordinator and Executive Board member of the European Science Foundation EUROPROBE program (1999-2001), which involved about two thousand scientists from across the entire Europe. Within the European Geosciences Union (EGU), she served on the EGU Council and EGU Program Committee in 2013-2017 as Geodynamics Division President and later as member of the EGU Arthur Holmes and Augustus Love medal committees.

Irina Artemieva is the editor-in-chief of the Journal of Geodynamics (Elsevier), associated editor in Scientific Reports (Nature Publishing Group), and has earlier served as associated editor in Tectonophysics (Elsevier), topical editor of the EGU journal Solid Earth. She is member of advisory committees of national geophysical journals in several countries. She was/is Task Force leader in the International Lithosphere Program, Program Officer of the International Heat Flow Commission, chairperson of the Danish National Committee for Lithosphere Research, Danish Executive Committee Member of the International Science Council, and has served as panel member and panel chair in geosciences in national funding agencies of Sweden, Ireland, France, Portugal. In 2022, Artemieva was elected President of the European Geosciences Union, where she served as Vice-President the first year after the election. She continues as President of the European Geosciences Union in 2023-2024.