

# Meet the Authors



**Natalia Artemieva** is a senior scientist at the Planetary Science Institute in Tucson and at the Institute of Geosphere Dynamics of the Russian Academy of Science in Moscow. Traveling between these destinations, she also works in Berlin, London, and Toronto. She received an MS in physics and a PhD in physics and mathematics from the Moscow Institute of Physics and

Technology. She models high-velocity impacts in the Solar System—from Mercury to Saturn. Her favorite topic is impact ejecta, which includes tektites, meteorites from other planets, and enigmatic ejecta layers.



**Philippe Claeys** is a geologist, planetary scientist, and geochemist interested in documenting the consequences of asteroid and comet impacts on the evolution of the biogeosphere. He obtained his PhD in 1993 from the University of California at Davis, working on the K-T boundary Chicxulub crater in Yucatan. He currently heads the interdisciplinary research unit Earth System Sciences at

the Vrije Universiteit Brussel in Brussels. He is also a visiting professor at Ghent University, the Catholic University Leuven, and the University of Liège. He enjoys working in the lab with PhD students and postdocs on projects ranging from astrobiology to geoarcheology. A current hot topic is the search for meteorites in the blue ice fields of Antarctica surrounding the Belgian station Princess Elisabeth.



**Gareth S. Collins** is a senior lecturer in the Department of Earth Science and Engineering, Imperial College London, and is currently supported by a Natural Environment Research Council Advanced Fellowship. He received his PhD in geology from Imperial College London in 2002. He has worked extensively to understand the formation of large impact craters. His research inter-

ests include the numerical simulation of impact cratering and other rapid geologic processes, such as large landslides and tsunami waves.



**Alex Deutsch** is a professor at the Institut für Planetologie, Westfälische Wilhelms-Universität Münster. He studied geology at the Universität Wien, Austria, and received his doctorate in 1976. After a Swiss postdoctoral fellowship at the Institut für Kristallographie und Petrographie, ETH-Zürich, he joined the Isotope Geochemistry Lab at this institution. His interest in impact processes began

in 1983 at Münster when he investigated lunar impact breccias with the Rb-Sr technique. Since, his major research topics include shock and cratering experiments, terrestrial craters, and the K-Pg boundary.



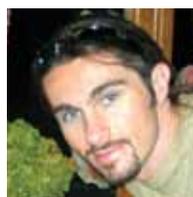
**Billy P. Glass** is an emeritus professor in the Department of Geological Sciences, University of Delaware, where he has been since 1970. He received his PhD in submarine geology from Columbia University in 1968. He was in the US Army Corps of Engineers assigned to the Planetology Branch at Goddard Space Flight Center from 1968 until 1970. He was the recipient of the

2005 Barringer Medal for his contributions to tektite research and the study of impact ejecta deposits. He is the author of *Introduction to Planetary Geology*, published by Cambridge University Press. His present research involves the study of distal impact ejecta layers, with an emphasis on how they vary with distance from the source crater.



**Lutz Hecht** is a senior scientist and lab manager at the Natural History Museum Berlin and associate professor at the Free University Berlin. He received his PhD (1993) and habilitation (2000) at the Technical University of Munich and was initially interested in granite petrology, hydrothermal processes, and ore deposit formation, including the genesis of uranium deposits. Over the last 10 years

his major research topics have been the chemistry and petrology of terrestrial impactites, including associated ore deposits. He is also engaged in the promotion of Earth and planetary sciences to schools and the general public.



**Fred Jourdan** is a senior research fellow at the John de Laeter Centre of Mass Spectrometry and the Department of Applied Geology, Curtin University, Perth, Australia. He is the director of the Western Australian Argon Isotope Facility, dedicated to research in  $^{40}\text{Ar}/^{39}\text{Ar}$  geochronology. He obtained his PhD at Nice University, France, in 2005. His research focuses on the isotopic study

of timescales and processes recorded in terrestrial and extraterrestrial materials, with a special interest in large igneous provinces and in impact events and their relationship to mass extinctions. He is also active in the development of the  $^{40}\text{Ar}/^{39}\text{Ar}$  technique.



**Christian Koeberl** is a professor of impact research and planetary geology at the University of Vienna, Austria, and the director general of the Natural History Museum in Vienna. His main research interest is the interdisciplinary study of meteorite impact craters, including shock petrography and the geochemistry of impactites; he also works on meteorites. He is a full member of the Austrian

Academy of Sciences and editor of the *Geological Society of America Bulletin*. He has published over 360 peer-reviewed research papers and has written or edited 16 books.



**Falko Langenhorst** received his PhD in planetology from the University of Münster in 1993 and is currently a professor of analytical mineralogy of micro- and nanostructures at the University of Jena, Germany. His research interests include shock and ultrahigh-pressure metamorphism of minerals, studies of meteorites, the mineralogy of Earth's deep interior, and more recently geobiology. His

central approach is to understand the properties and evolution of minerals on the basis of their defect microstructures using analytical transmission electron microscopy.



**Iain McDonald** is the manager of the ICP laboratories at the School of Earth and Ocean Sciences at Cardiff University, Wales. He holds a BSc (Joint Hons) degree in chemistry and geology from the University of Glasgow and a PhD from the University of Cape Town. Following postdoctoral work at the University of Manchester, he was appointed as a lecturer, then senior lecturer, in

geochemistry at the University of Greenwich. His main interests are analytical geochemistry, processes associated with the formation of platinum-group element mineral deposits, and research into the formation of impact craters and impact ejecta.

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**H. Jay Melosh** is a University Distinguished Professor of Earth and atmospheric science at Purdue University in West Lafayette, Indiana. He received an AB degree in physics from Princeton University in 1969 and a PhD in physics and geology from Caltech in 1973. His principal research interests are impact cratering, planetary tectonics, and the physics of earthquakes and landslides. His recent research includes studies of the giant impact origin of the Moon, the K-T impact that extinguished the dinosaurs, the ejection of rocks from their parent bodies, and the origin and transfer of life between the planets. He is a science team member of NASA's Deep Impact mission, which successfully cratered comet Tempel 1 on July 4, 2005, and flew by comet Hartley 2 on November 9, 2010.



**Gordon "Oz" Osinski** is the NSERC/MacDonald, Dettwiler and Associates Ltd/Canadian Space Agency Industrial Research Chair in planetary geology in the Department of Earth Sciences and Physics and the Department of Astronomy at the University of Western Ontario, Canada. He obtained his PhD in geology in 2004 from the University of New Brunswick, Fredericton. His main area of research focuses on understanding impact cratering as a planetary geological process, on the Earth, the Moon, and Mars. His research covers the tectonics of impact crater formation, the generation of impact melts, the emplacement of ejecta, and post-impact processes such as impact-associated hydrothermal activity. He has published more than 60 papers in peer-reviewed journals and special volumes and has given over 50 conference presentations.



Until her untimely death on May 15, 2011, **Elisabetta Pierazzo** was a senior scientist at the Planetary Science Institute in Tucson and an adjunct lecturer at the University of Arizona. She received a Laurea (equivalent to an MS) in physics from the University of Padua, Italy, and a PhD in planetary sciences from the University of Arizona. She studied impact cratering and its effects for 15 years, establishing a strong connection with both the impact and climate modeling communities. Her principal research interests were impact cratering on planetary surfaces, the environmental effects of impacts, and the role of impacts in the origin of life. See her obituary on page 23.



**Wolf Uwe Reimold** is a professor of mineralogy and petrography at the Museum for Natural History – Leibniz Institute for Research on Evolution and Biodiversity at Humboldt University Berlin (Germany). He holds degrees in mineralogy from the University of Münster. Between 1984 and 2005 he was on the staff of the University of the Witwatersrand, Johannesburg, South Africa, where he established and led the Impact Cratering Research Group. For his multidisciplinary research on many impact structures throughout the world, and especially his work on the Vredefort impact structure of South Africa, he was honored in 2009 by the Meteoritical Society, which awarded him the Barringer Medal. Besides meteorite impact studies, Uwe has carried out research on ore deposits and Ethiopian geology, and has been a keen promoter of geoconservation.



**Bruce M. Simonson** has been teaching and doing research with undergraduates at the Oberlin College Geology Department since 1979. He received his BA from Wesleyan University in 1972, then mapped in Central America for 2 years. He obtained his PhD from Johns Hopkins University, where he was trained as a sedimentologist and acquired an enduring interest in surface environments on the early Earth. This led to field and petrographic studies of clastics, carbonates, volcanics, cherts, and iron formations on several continents. His current research focuses on Precambrian spherule layers that represent distal ejecta from large asteroid impacts.

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