



Kate Hadley Baker is now retired from BP America in Houston, Texas. Her career has spanned many areas among the geoscience and engineering disciplines, including geotechnical, drilling, and reservoir engineering; geology; geophysics; and formation evaluation. Baker started her career at Exxon Production Research Company, working as a research geologist, becoming supervisory geologist in the Reservoir Description Section. She then moved from senior to district geologist positions in Exxon's Offshore Division, then to head of formation evaluation at Exxon Company USA. After serving in various managerial roles at BP and its predecessor companies, she became distinguished advisor and director of new well delivery in BP's Upstream Technology Function, serving also during 2009–10 as Vann Fellow to Princeton University.

Baker was awarded SPE Distinguished Membership, and Rotary International made her a Paul Harris Fellow. Among many professional volunteer positions, she has served with the US National Science Foundation Advisory Committee and US Department of Energy (DOE)/Office of Basic Energy Sciences Council on Earth Sciences. She currently chairs the annual peer review for the US DOE Geothermal Technologies Program Office and is secretary of the American Rock Mechanics Association. In her association with SPE, Baker is proudest of helping nurture it as an international organization, as a participant in the digital age, and as custodian of international reserves and resources definitions. She earned a B.S. degree in geology and a Ph.D. in geophysics—both from the Massachusetts Institute of Technology.



Dr. Antonio Bobet is a Professor of Civil Engineering at Purdue University, USA. He holds a bachelor's and master's degrees in Civil Engineering from Technical University of Madrid in Spain and a Doctor of Science degree from Massachusetts Institute of Technology, USA. He has extensive experience in practice. He was senior geotechnical engineer at Euroestudios, consulting engineers, in Spain, for four years, and construction manager at Ferrovial, Spain, also for four years. Dr. Bobet's areas of interest include rock fracture mechanics, wave propagation through fractured media and underground structures.

He has authored or co-authored more than one hundred technical publications. He serves or has served on the Editorial Board of a number of Journals. He is currently the Associate Editor for Rock Mechanics and Rock Engineering and Co-Editor in Chief of Underground Space. He is an elected member of the Board of Directors of ARMA since 2009, and has served as its President from 2013 to 2015. He is the Chair of the 2012 U.S. Rock Mechanics/Geomechanics Symposium and a member of the Geotechnical Advisory Board (GAB) of the Panama Canal.

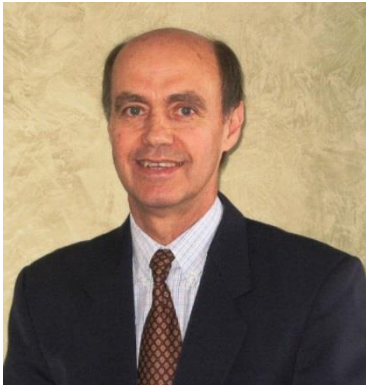
Dr. Bobet has received a number of awards, including the ASCE 2011 Ralph B. Peck Award, the 2012 National Award for Significant Contributions in Science and Technology - SENACYT Panama, and the 2012 ARMA Research Award.



Herbert H. Einstein, Professor Civil and Environmental Engineering at the Massachusetts Institute of Technology, received his degree in civil engineering from ETH-Zürich. His teaching and research areas are underground construction, rock mechanics and engineering geology. Professor Einstein has been involved as an advisor, consultant and researcher in issues related to underground construction, rock mechanics and rock engineering and natural hazards, notably landslides, and in waste repository problems. He has been and is member of a number of national and international technical/scientific committees and advisory boards; he is also co-editor of the journal, Rock Mechanics and Rock Engineering and member of the editorial boards of Tunneling and Underground Space Technology and of Engineering Geology. Professor Einstein is author or co-author of over 240 publications in his area of expertise. He was the recipient of the prestigious Müller lecture award of the International Society for Rock Mechanics and of the "Outstanding Contributions to Rock Mechanics" award of the American Rock Mechanics Association. He also received several teaching awards from his Department and from the School of Engineering.



[Derek Elsworth](#) is a professor in the Departments of [Energy and Mineral Engineering](#) and of [Geosciences](#) and the [Center for Geomechanics, Geofluids, and Geohazards](#). His interests are in the areas of computational mechanics, rock mechanics, and in the mechanical and transport characteristics of fractured rocks, with application to geothermal energy, the deep geological sequestration of radioactive wastes and of CO₂, unconventional hydrocarbons including coal-gas, tight-gas-shales and hydrates, and instability and eruption dynamics of volcanoes.



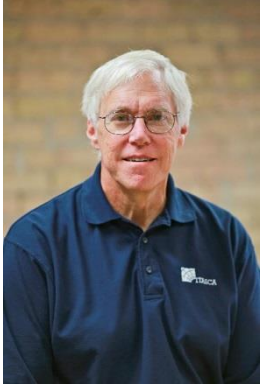
Gabriel (Essie) Esterhuizin is a mining engineer with a Ph.D. from the University of Pretoria, South Africa. He started his career in rock engineering in the deep South African gold mines in 1975 where he was involved in the planning and execution of operations in highly stressed, seismically active ground. He returned to the University of Pretoria where he was a Senior Lecturer and later Associate Professor in the Department of Mining Engineering. He entered into full time consulting with SRK Consulting in South Africa and later in Denver, Colorado where he was a Principal Consultant. Essie has spent the last ten years at the NIOSH Office of Mine Safety and Health in Pittsburgh where he has been involved in ground control research for underground limestone and coal mines. His professional interest has been to bridge the gap between academic knowledge and practical implementation. Over his career he developed methods for fragmentation analysis in caving mines, probabilistic stability analysis for tabular deposits and pit slopes, and pillar design for underground limestone mines that have found wide acceptance by operational rock engineering staff around the world. Essie has more than fifty publications in the field of mining related rock engineering. He received the Salomon Award of the South African National Institute for Rock Engineering (SANIRE) for his research into coal mine pillar stability.



Joe Labuz is the MSES/Miles Kersten Professor and Head, Department of Civil, Environmental, and Geo- Engineering, University of Minnesota. He received his degrees in civil engineering: B.S. from Illinois Tech, M.S. and Ph.D. from Northwestern University. In 1987, he joined the faculty at the University of Minnesota.

His area of expertise is experimental geomechanics. He has been involved with research on damage and fracture of rock, including strength and constitutive behavior, acoustic emission and imaging techniques, and the development of novel experimental apparatus, for which he has been awarded two patents. Notable contributions include work on size effect in post-peak response, characterization of the process zone, and failure criteria for dry and saturated rock.

Prof. Labuz has advised 44 graduate students, published over 140 papers in refereed journals and conference proceedings, and presented some 40 invited lectures. He is an Associate Editor of the International Journal of Rock Mechanics and Mining Sciences, and he is on the editorial board of Rock Mechanics and Rock Engineering and Hydraulic Fracturing Journal. He is a Fellow of ASCE, and he is the 2011 recipient of Distinguished Engineer from the Minnesota Federation of Engineering Societies.



Loren Lorig received his doctorate from the University of Minnesota under Profs. Barry Brady and Peter Cundall. He worked briefly as a post-doc researcher at CSIRO in Australia, but has spent the majority of his professional career at Itasca. He directed Itasca's Santiago, Chile office for nearly 20 years. Loren is currently CEO and President of Itasca International. He has more than 35 years of experience in engineering projects requiring specialized geomechanics consulting. His area of expertise is in the application of numerical models to provide solutions to stability, support and dynamics problems in civil and mining engineering. Dr. Lorig has worked extensively at some of the largest open pits in the world and has served as a member of consulting and peer review boards for several large civil and mining projects.

He was Itasca's project manager for Large Open Pit project, an international research and technology transfer project on the stability of rock slopes in open pit mines and lead author for Slope Design Methods (chapter 10) of Guidelines for Open Pit Slope Design (2009) and Numerical Modelling (chapter 4) of Guidelines for Evaluating Water in Pit Slope Stability (2013).

He has presented keynote lectures at both ISRM and ARMA conferences, as well as more than 50 short courses in more than 15 countries. He has been an instructor for graduate-level university courses in the United States, Sweden, Finland and Chile, author and co-author of more than 80 technical articles, and is a Registered Professional Engineer in four U.S. states.



Since October 2009, John McLennan has been a USTAR Associate Professor in the Department of Chemical Engineering at the University of Utah. He has been a Senior Research Scientist at the Energy & Geoscience Institute and an Adjunct Professor in the Department of Civil Engineering at the University of Utah, since January 2008. He has a Ph.D. in Civil Engineering from the University of Toronto, awarded in 1980. He has more than thirty-five years of experience with petroleum service and technology companies. He worked nine years for Dowell Schlumberger in their Denver, Tulsa and Houston facilities. Later, John was with TerraTek in Salt Lake City, Advantek International in Houston, and ASRC Energy Services in Anchorage. He has worked on projects concerned with subsurface energy recovery (hydrocarbon, geothermal) in a variety of reservoir environments, throughout the world. John is the current ARMA President.



Joseph P. Morris, PhD is the Group Leader of the Computational Geosciences Group at Lawrence Livermore National Laboratory. Dr Morris received his Ph.D. from Monash University (Melbourne, Australia) in the area of mesh-free computational methods. Dr Morris has over 20 years' experience developing new computational methods for fluid mechanics and geomechanics. Dr Morris has over a decade of experience working at Lawrence Livermore National Laboratory where he has investigated defense, energy and environmental applications involving the coupling of fluid and solid mechanics from high rate down to static applications. Dr Morris also worked for almost 5 years as a Principal Scientist with Schlumberger-Doll Research, developing and applying novel techniques for optimizing technologies for proppant placement during hydraulic fracturing. He is a member of ARMA and SPE.



Maria A. Nikolinakou is a Research Associate at the Bureau of Economic Geology, Jackson School of Geosciences, at the University of Texas at Austin. Dr. Nikolinakou is a Civil/Geotechnical Engineer. She received her Ph.D. in Theoretical Soil Mechanics from MIT in 2008. She holds a MS in Geotechnical Engineering from MIT (Geostatistics) and a Civil Engineering Diploma from NTUA, Greece (Tunneling in soft rock – Athens Metro). Before joining the University of Texas at Austin, she worked for Shell Exploration and Production on Reservoir Geomechanics. Her current research topics include poromechanical modeling of basin sediments, modeling of stresses and pore pressures in sediments bounding salt bodies, borehole stability and pore-pressure prediction. Dr. Nikolinakou was a member of the first class of the ARMA Future Leaders. She h

as been an invited keynote speaker at the Shale Symposium, Montreal ISRM 2015, and at the 3rd International Geoquus Workshop, in Potsdam, Germany. She received the 2015 Tinker Family BEG Publication Award. Dr. Nikolinakou volunteers for high-school STEM events and is currently the president of the MIT Club of Austin and San Antonio.



Dr. Laura J. Pyrak-Nolte is a Professor in the Department of Physics & Astronomy, College of Science, at Purdue University. She holds courtesy appointments in the Lyle School of Civil Engineering and in the Department of Earth, Atmospheric and Planetary Sciences, also in the College of Science. Prior to arriving at Purdue in 1997, she was an Assistant Professor at the University of Notre Dame in the Department of Civil Engineering and Geological Sciences. Dr. Pyrak-Nolte holds a B.S. in Engineering Science from the State University of New York at Buffalo, an M.S. in Geophysics from Virginia Polytechnic Institute and State University, and a Ph.D. in Materials Science and Mineral Engineering from the University of California at Berkeley. Her interests include applied geophysics, experimental and theoretical seismic wave propagation, rock mechanics, micro-fluidics, particle swarms, and fluid flow through Earth materials. In 1995, Dr. Pyrak-Nolte received the Schlumberger Lecture Award from the International Society of Rock Mechanics. She received Young Investigator Awards from the National Science Foundation and the Office of Naval Research, and in 2001, Purdue recognized Dr. Pyrak-Nolte's accomplishments with a University Scholar Award. In 2012, she was appointed to the Department of Energy Earth Sciences Council and to the council for the International Society of Porous Media. In 2013, she was made a Fellow of the American Rock Mechanics Association (ARMA). In 2015, she was elected Vice President of ARMA and was appointed to the Department of Energy, Office of Basic Energy Sciences, Council on Chemical Sciences, Geosciences and Biosciences.

Professor Pyrak-Nolte has been involved in the Rock Mechanics community since 1987 and with ARMA since 1994. She has participated in conferences, has chaired or co-chaired technical sessions and has provided service as a reviewer to the organization of symposia. She was on the organizing committee for the 2012 meeting in Chicago and is the chair for the 2013 Symposium in San Francisco.



Erik Westman (PE, PhD) is a Professor and the Interim Department Head of the Mining and Minerals Engineering Department at Virginia Tech. He earned a Bachelor of Science degree in Geophysical Engineering from the Colorado School of Mines, a Master of Science degree in Geotechnical (Civil) Engineering from the University of Colorado, and a Ph.D. in Mining and Minerals Engineering from Virginia Tech. Prior to joining Virginia Tech, Dr. Westman worked for five years each in private industry and for the Denver Research Center of the US Bureau of Mines. His research focuses on the use of seismic tomography for imaging stress redistribution and changing conditions in underground mines. He has worked with seismic data from four different countries and many different mines, both longwall and hard rock. Additionally, he has used numerical modeling and advanced instrumentation to better understand the geomechanics of mining operations, particularly to increase safety and productivity.