

Shaleology Forum 2018 - List of Speakers



Alberto Striolo
University College London

Since 2013 Dr. Striolo is Professor of Molecular Thermodynamics within the Department of Chemical Engineering at University College London, London's global university. Prior to this position, Dr. Striolo was the Lloyd and Joyce Austin Presidential Associate Professor within the School of Chemical, Biological and Materials Engineering at the University of Oklahoma, US. During his career, Dr. Striolo has applied an arsenal of modelling and simulation techniques to characterise the structure of fluid at solid-liquid interfaces. He held visiting positions at Lawrence Berkeley National Laboratory, Berkeley, CA, and at Princeton University, NJ, to verify the theoretical predictions using experimental observables and to correlate the interfacial fluids structure to their transport. Striolo is interested in quantifying interfacial effects, especially those that can be related to practical applications such as water desalination, management of hydrates in flow assurance problems, separations, self- and directed assembly, and many others, including shale gas.



Adrian Jones
University College London

Adrian Jones is the Hayman Reader in Petrology at UCL, and holds an Associate Research post at the Natural History Museum London. Adrian has wide geological, fieldwork, and analytical geochemical expertise, especially on the behaviour of carbon-rich systems during melting and crystallization at high pressures and temperatures. He has supervised >25 PhD students of whom 5 currently hold academic tenured positions in leading UK institutions. He was a Founder of the Deep Carbon Observatory (DCO) supporting education and research of carbon through multidisciplinary science. His UCL lectures and DCO summer schools and workshops aim to inspire early career scientists to imagine new methods and technologies for measuring carbon in the natural environment including bio-rock interaction.



Barbara Sherwood Lollar,
University of Toronto

Dr. Barbara Sherwood Lollar, C.C., FRSC is a University Professor in Earth Sciences at the University of Toronto. She completed her studies at Harvard, Waterloo, and Cambridge in the United Kingdom before joining the University of Toronto in 1992. She is a CRC Tier I Chair in Isotopes of the Earth and Environment, Director of the Stable Isotope Laboratory, Senior Fellow of Massey College and Vice-President of the Geochemical Society. Sherwood Lollar has published extensively in research on stable isotope geochemistry to investigate groundwater remediation, to track the fate of carbon-bearing fluids and gases such as CO₂, CH₄ and H₂ in ancient fracture waters in the Earth's crust, and to investigate the role of deep subsurface microbial populations in carbon cycling. She has been a recipient of many academic awards (including the NGWA Darcy Lecturer, Steacie Fellowship, Canada Council Killam Fellow, and NSERC Accelerator Awards) and was selected in 2000 by Time Magazine Canada for their feature on "Leaders for the 21st Century". Most recently Sherwood Lollar was awarded the 2012 Geological Society of America Geomicrobiology and Geobiology Award, and the 2012 Eni Award for Protection of the Environment. The prestigious international Eni Awards recognize outstanding research in fields of energy and the environment. The Protection of the Environment award is presented for research and innovation in areas concerning the environmental impact of human activities, specifically protection and restoration of the environment, with a special focus on research and innovative technologies to eliminate pollutants and to improve environmental conditions.



John Shaw, University of
Alberta

John M. Shaw obtained his B.A.Sc. degree in Chemical Engineering and his Ph.D. in Metallurgy and Material Science at the University of British Columbia, Vancouver, Canada. He started his academic career at the University of Toronto in 1985. He joined the Department of Chemical and Materials Engineering at the University of Alberta, in 2001, where he held the NSERC industrial research chair in petroleum thermodynamics (2001-2017) and is now a professor. During his career, he has developed expertise in the phase behaviour, physiochemical and transport properties of hydrocarbons from coal liquids, heavy oils and condensate rich reservoir fluids to pure compounds. In his current role, he develops enabling technologies and methodologies for measuring and calculating thermophysical properties of hydrocarbons, and for selecting industrial processes related to hydrocarbon production, transport and refining sectors with a global mandate.

He is an associate editor of Energy and Fuels, chairs the conference committee for PPEPPD 2019, is a member of the international advisory board for the European Community Project Science for Clean Energy (S4CE, led by Alberto Striolo), the advisory board for Fluid Phase Equilibria, and is a member of the International Union of Pure and Applied Chemistry (IUPAC) Project on Recommended Reference Materials for Phase Equilibria Studies. He sat until recently on an advisory committee for the National High Magnetic Flux Laboratory Tallahassee (FTICR-MS facility, USA), and the Network Coordination Council for the Canadian Oilsands Network of Research and Development (CONRAD). He is called upon regularly for advice by government laboratories, universities, and corporations. During his current sabbatical he will among other activities advise the Peruvian government on the quality of the Chemical and Petroleum Engineering undergraduate programs at Peruvian universities. He is also interested in e-learning and likes to ride bicycles and travel!



Kevin Taylor
University of Manchester

Kevin Taylor Heads up the Mudstone and Shale Reservoir Research Group at the University of Manchester, UK. He graduated from the University of Durham with a BSc Hons in Geological Sciences in 1987 and a PhD in Sedimentology from Reading University in 1990. His research has applied standard petrographic and geochemical analysis (e.g. optical and electron microscopy, XRD, stable isotope analysis) and novel mineralogical analysis (e.g. CL, Raman, synchrotron X-ray analysis) to sediment, shale gas and mudstone systems. He has been instrumental in integrating field- and basin-scale observations with pore-scale analysis, which has had significant implications for predicting shale and sandstone reservoir properties. His recent and current research has been integrating multi-scale sedimentological and diagenetic analysis in major mudstone successions and shale-gas reservoirs (e.g. the Mancos Shale, Utah; the Marcellus, Woodford and Fayetteville Shales of eastern USA; Cretaceous calcareous shales of the Western Interior Seaway, Ordovician Shales in Canada and the UK; Mesozoic shales and source rocks of Europe). He is also coordinating research initiatives in shale-reservoir structure using high-resolution X-ray CT scanning and experimental mechanical analysis of shales, with links to mineralogical and petrophysical data. He has published over 80 peer reviewed papers and has supervised over 40 PhD students.





Thomas Goode, iGAS

Thomas has six years of industry experience working across operational, development, exploration and field geology roles in Onshore UK and Arctic Norway. Over the past five years he has been involved in exploration and development drilling projects, 3D seismic acquisition operations, in-place resource estimations and the 14th Licencing Round whilst working for iGAS Energy PLC. Thomas was the technical focal point for the Dart Energy Acquisition, farm out discussion with INEOS Upstream and investment meetings with Kerogen Capital. Prior to working with iGAS Energy, he has previously worked for the Norwegian Polar Institute, characterising complex Barents Sea reservoirs and for Deloitte Limited providing consulting service to operators exploring within Sub-Saharan Africa. Thomas has a First Class Master's Degree in Geology from the University of Southampton and is a fellow of the London Geological Society and an active member of the Petroleum Exploration Society of Great Britain, the American Association of Petroleum Geologists, European Association of Geoscientists and Engineers and the South East Asia Petroleum Exploration Society. Through technical collaborations with the Norwegian Polar Institute, Geological Society of Denmark and Greenland and Imperial College London he is a published technical author on a range of topics including quantitative reservoir characterisation, 3D petroleum systems modelling and sequence stratigraphy.



Ross Andrews, iGAS

Ross has 12 years' experience in both the onshore and offshore oil and gas industry. Prior to joining iGAS, Ross spent 9 years as a Geologist with Centrica Energy working in the SNS, East Irish Sea and Onshore UK before spending 3 years working in a business development team based in the US. Ross worked on multiple resource plays across the Lower 48 including the Marcellus, Utica, Eagleford, Haynesville and Permian Basin as well as mature field evaluations in California. On returning to the UK Ross joined INEOS Shale as a Senior Geologist responsible for all aspects of the subsurface workflow from seismic interpretation, construction of geological models of key basins to well site selection and community engagements. Since joining iGAS, Ross has been involved in multiple projects across the conventional and unconventional arms of the company.



Adrian Gregory, MORE Oil & Gas Resource Management Consultancy

Adrian has 35 plus years in petroleum as a technical leader with experience in commercial, management, governance and leadership roles. The breadth of his technical specialism spans the entire petroleum exploration and production value chain (conventional & unconventional) having worked in Government, National and International E&P companies.

Adrian has provided technical assurance insight into the ShaleXenvironment Project. He helped formulate the new Societal License to Operate [SL20], built on a new Mastery Audit and Life Cycle Sustainability Assessment. Stewardship of natural resources such as shale gas is key – in particular robust Resource and Reserves Classification.

He holds a BSc (Hons) in Biochemical & Chemical Engineering from University College London; Petroleum Engineering MSc from Imperial College; Diploma in Applied Economics & Financial Services from Kingston University; and is an alumni of London Business School.



Joanna Faure-Walker, University College London

Dr Joanna Faure-Walker is a Senior Lecturer at the Institute for Risk and Disaster Reduction. She is the IRDR Director of Studies and Programme Director for the IRDR MSc Risk, Disaster and Resilience. She lectures on natural hazards, vulnerability, risk and their integration into decision-making. Her primary research is centred around studying faults in the Earth's continental crust and using this to better understand the physical processes controlling earthquake generation, locations and timing. A related line of research integrates physical science research into risk and disaster reduction, including residents' risk perception, vulnerability, and resilience during the transitional phase of recovery.

Joanna is the module tutor for "Integrating Science into Risk and Disaster Reduction" and "Natural and Anthropogenic Hazards and Vulnerability".

Before joining the IRDR, Joanna was an analyst in the market-leading catastrophe risk modelling firm, RMS (Risk Management Solutions). RMS produces numerical models that provide a statistical approach to quantifying risk. During her time at RMS, Joanna gained an understanding of how catastrophe models are designed, developed and used both internally by modeling firms, external clients and the insurance industry. Joanna has worked on a number of consultancy projects, including in collaboration with industrial partners.



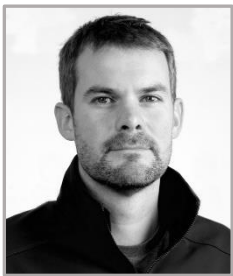
Alberto Guadagnini, Politecnico di Milano

Alberto Guadagnini is Professor of Hydraulic Engineering and Head of the Department of Civil and Environmental Engineering (DICA) at the Politecnico di Milano, Milano, Italy. He is also Adjunct Professor at the Department of Hydrology and Atmospheric Sciences, The University of Arizona, Tucson, Arizona, USA. He has been Professeur Invité at the University of Strasbourg (Strasbourg, France) in 2010, Visiting Professor at the Department of Hydrology and Water Resources, The University of Arizona, Tucson, Arizona, USA, in 1997, and 2010 - 2016, and Visiting Professor at the Department of Environmental Sciences and Energy Research, Weizmann Institute of Science, Rehovot, Israel, in 2011.

Research activities span both theoretical/numerical and experimental projects, being focused on subsurface flow dynamics of (variably) saturated soils, parameter estimation, inverse modeling, geostatistics, stochastic analyses of flow and transport of solutes in geo-chemically active subsurface environments, scaling in hydrology and geophysics, data assimilation, model reduction techniques for the solution of stochastic flow and transport problems, and uncertainty quantification in groundwater systems, from the pore- to the laboratory-, field- and basin-scale. He contributed to the development of exact and approximated formalisms for prediction of groundwater flow and transport processes governing the spreading of conservative and reactive solutes in heterogeneous reservoirs through conditional moments of the state variable of interest.

He is Executive Editor of the Journal Hydrology and Earth System Sciences, and Associate Editor of the Journals Water Resources Research and Stochastic Environmental Research and Risk Assessment.





Michael J. Wilkins, Ohio State University

Dr. Wilkins is an Assistant Professor in the Department of Soil and Crop Sciences at Colorado State University in Fort Collins, Colorado, USA. He received his Ph.D. at Manchester University in the UK, before performing postdoctoral research at UC Berkeley on field-scale bioremediation of uranium contamination in riparian aquifers. He subsequently worked for the US Department of Energy at Pacific Northwest National Laboratory as a staff scientist for four years, before joining Ohio State University in September 2013. In August 2018 he moved his research group to Colorado State University.

Trained as a microbiologist, his primary research interests focus around the results of microbial activity and metabolism in natural and human-impacted subsurface systems. He is currently funded through the US Department of Energy and the US National Science Foundation to investigate microbial life in hydraulically fractured shales.

Laboratory website: wilkinslab.com



Mike Dinkel, Anadarko

Mike Dinkel is a Rockies HSE Representative for Anadarko Petroleum Corporation and works on regional health, safety, and environmental matters for the company. He received a BS in Organismal Biology (2002) and a BS in Environmental Science (2007) at the University of Kansas. He has since then held several positions including Environmental Scientist at Larson and Associates and later LT Environmental, Inc. Since joining Anadarko Petroleum Corporation, Mr. Dinkel has been involved in project management of a variety of initiatives focused primarily on remediation, water, and sustainable reuse and recycling of materials in the oil and natural gas operations.



Christine Trenorden, University College London Australia

Christine Trenorden has a background in law and governance, having been a legal practitioner, the Senior Judge in the specialist Environment, Resources and Development Court (South Australia) and involved in international aid projects in relation to the governance of natural resources in the Asia-Pacific region. For the past 5 years Christine has been a visiting professor at UCL Australia, teaching in law and governance in relation to the sustainable development of energy resources. She is now looking forward to semi-retirement!



Gary Edwards UK Environment Agency

After gaining an engineering degree from the Camborne School of Mines, Gary went on to study Hydrogeology at Birmingham. His area of work focuses on the extractive industries and in particular metal mining and hydrocarbons, with particular interest in fluid transport and geomechanics. Gary joined the Environment Agency in 2003 and worked on implementing the European Mining Waste Directive. Since then he has contributed to the regulation of the oil and gas sector. Gary has just completed a two-month visit to Alberta, where he worked closely with the Alberta Energy Regulator and industry to gain a practical understanding of a full-scale shale gas industry.



Jennie C. Stephens, Northeastern University

Jennie C. Stephens is the Director of the School of Public Policy and Urban Affairs at Northeastern University and the Dean's Professor of Sustainability Science & Policy. She is also the Director for Strategic Research Collaborations at Northeastern University's Global Resilience Institute. She is also affiliated with the department of Civil & Environmental Engineering and the department of Cultures, Societies & Global Studies.

Her research, teaching, and community engagement focus on strengthening climate and energy resilience, social and political aspects of the renewable energy transition, reducing reliance on fossil fuels, energy democracy, gender in energy and climate, and climate and energy justice. Her unique transdisciplinary approach integrates innovations in social science with science and engineering to promote strengthen societal resilience by promoting social justice, reducing inequalities and redistributing power (electric power, economic power and political power). Professor Stephens was a 2015-2016 Leopold Leadership fellow, and her book "Smart Grid (R)Evolution: Electric Power Struggles" (Cambridge University Press, 2015) explores social and cultural debates about energy system change (co-authored with Wilson & Peterson).

