

# PROGRAMME

Day One	
10.00	<b>Registration</b>
10.25	<b>Welcome</b>
	<b>Session One: Imaging</b>
10.30	<b>Keynote: Joanne Fredrich (BP)</b> <b>Image-Based Modeling &amp; Simulation: Applications in Reservoir Characterization and Performance Prediction</b>
11.00	<b>Jenny Omma (Rocktype Ltd)</b> Introducing Big Data Petrography: QEMSCAN based rock characterisation
11.20	<b>J. Buckman (Heriot Watt University)</b> Workflow model for the digitization of shale rocks
11.40	<b>Break</b>
12.00	<b>Matthew Andrew (Carl Zeiss X-ray Microscopy)</b> Solving petroleum problems using the frontiers of imaging technology: Multiscale, correlative and in situ techniques
12.20	<b>Andrew Fogden (FEI)</b> 3D micro-CT imaging of the pore-scale distribution of oil, brine and air in place in reservoir shales and in sandstones after low salinity flooding, and relations to local mineralogy
12.40	<b>Mark Osborne (BP)</b> Understanding variations in reservoir porosity in the Eagle Ford shale using scanning electron microscopy- Implications for basin modelling
13.00	<b>Lunch</b>
	<b>Session Two: Isotopes</b>
14.00	<b>Keynote: Cédric M. John (Imperial College London)</b> <b>Applications of clumped isotopes to the petroleum industry: a critical review</b>
14.30	<b>Richard H Worden (University of Liverpool)</b> Compound specific sulfur isotopic analysis of organosulfur compounds to help reveal genetic links between the Lower Paleozoic oil fields from the Tarim Basin, NW China
14.50	<b>Andrew C. Aplin (Durham University)</b> Unravelling quartz, calcite and dolomite cementation histories in sandstones with in situ microanalysis of oxygen isotopes
15.10	<b>Luca Mascheroni (Geolog Srl)</b> Real time carbon isotopes analysis
15.30	<b>Break</b>
16.00	<b>Junjie Liu (Durham University)</b> Constraining the timing of oil generation and oil-source fingerprinting via the rhenium-osmium isotope system: Implications from the Duvernay Petroleum System, Western Canada Sedimentary Basin
16.20	<b>P. C. Smalley</b> Constraining Carbonate Cementation in Clastic Reservoirs Using Clumped Isotopes: A case study from the Bruce Field, UK North Sea

16.40	<b>R. Honlet (KU Leuven)</b> A novel approach to geobarometry by combining fluid inclusion (Th) and clumped isotope ( $\Delta 47$ ) paleothermometry in hydrothermal dolomite (Cantabrian Zone, Northern Spain).
17.00	<b>Claire M. Veillard (Imperial College London)</b> Combining two novel methods for reservoir characterization: what can clumped isotope geochemistry and micro-CT imaging reveal about early dolomitization?
17.20	<b>Finish</b>
17.20	<b>Wine Reception</b>

<b>Day Two</b>	
08.30	<b>Registration</b>
	<b>Session Three: Applications/Case Studies</b>
09.00	<b>Keynote: Brian Horsfield (Potsdam)</b> <b>Using pyrolysis techniques and high resolution mass spectrometry (FT-ICR MS) to evaluate the impact of fluid retention on bulk petroleum properties in shale</b>
09.30	<b>Nicolas Ville (BP)</b> Implementation of advanced analytical techniques at the wellsite: learnings from surface data acquisition, benefits and pitfalls
09.50	<b>Scott Brindle (CGG)</b> Application of automated mineralogical and textural data to rock physics models: A novel approach for generating wireline-equivalent elastic and mechanical properties from core and drill cuttings.
10.10	<b>Gavin Hunt (Spectra-Map Ltd)</b> The application of imaging IR spectroscopy for mineralogical analysis of core and cuttings
10.30	<b>Break</b>
10.50	<b>Keynote: Pim van Bergen (Shell)</b> <b>Production Geochemistry – Fluids don't lie and the devil is in the detail</b>
11.20	<b>D. Misch (Montanuniversitaet Leoben)</b> Source rock assessment from basin- to nano-scale: A case study from the Ukrainian Dniepr-Donets Basin
11.50	<b>Claudio Delle Piane (CSIRO)</b> A multi-disciplinary approach to the evaluation of thermal alteration of mineral and organic components of the Marcellus Shale. Analytical results and implications for transport properties.
12.10	<b>Richard Kempton (CSIRO)</b> Using fluid inclusions to trace petroleum systems – a integrated case study of oil and gas migration in the Bight Basin to constrain source, composition and timing.
12.30	<b>Lunch</b>
	<b>Session Four: Geochemistry at Varying scales</b>
13.30	<b>Keynote: Clifford Walters (ExxonMobil)</b> <b>Organic geochemistry at millimeter to Ångstrom resolution</b>
14.00	<b>Herbert Volk (BP)</b> Using petroleum inclusions to trace petroleum systems – a review

14.20	<b>Stuart Jones (Durham University)</b> Chlorite, chlorite everywhere but not an understanding on why it controls porosity? An HPHT experimental study of sandstone reservoir quality.
14.40	<b>Patrick Whitelaw (BGS)</b> Convergence of shale gas reserve estimates from a high pressure water pyrolysis procedure and gas adsorption measurements
15.00	<b>Break</b>
15.30	<b>M. Barbarano (Chemstrat)</b> Raman Heavy Mineral Analysis for understanding sediment provenance and reservoir heterogeneities in fluvial successions and optimising hydrocarbons production.
16.00	<b>Andrea Schito (Università degli Studi Roma Tre)</b> Raman spectroscopy: a new tool for the analysis of thermal evolution of amorphous organic matter rich kerogen in diagenesis
16.20	<b>Mohinudeen Faiz (Origin Energy)</b> Gas isotope fractionation in source rocks and implications for petroleum exploration
16.40	<b>Will Meredith (University of Nottingham)</b> Origin of solid bitumen in the Elgin/Franklin complex of the Central Graben
17.00	<b>Finish</b>

## Poster Programme Day 1

<b>Patrick J. Dowey (University of Manchester)</b> Multi-scale 3D quantification of an organic-rich mudstone, the Carboniferous Bowland Shale
<b>John Ford (CGG)</b> Reservoir quality assessment using automated mineralogical techniques: Quantification of authigenic kaolinite and its relationship with pore networks.
<b>Joyce Schmatz (MaP - Microstructure and Pores GmbH)</b> Multiscale visualization of fluid-fluid-mineral interfaces and pore connectivity using Cryo-BIB-SEM and Liquid Metal Injection: A case study on re-saturated North Alpine Foreland Basin sandstone.
<b>Arjen Mascini (Thermo Fisher Scientific)</b> Multiscale characterization of North Sea chalk samples using micro X-ray computed tomography and focused-ion beam scanning electron microscopy.
<b>Richard H Worden (University of Liverpool)</b> Improved Imaging and Analysis of Chlorite in Reservoirs and Modern Day Analogues: New Insights for Reservoir Quality
<b>Duncan Pirrie (Helford Geoscience LLP)</b> Automated mineral analysis; lithological, petrographic and diagenetic evaluation of well cuttings
<b>Alex Finlay (Chemostrat)</b> Oil generation West of Shetlands: Insights from Re-Os geochronology
<b>David Selby (Durham University)</b> Constraining the timing of oil and gas generation: Insights from Re-Os geochronology and Apatite Fission Track analysis in the Neoproterozoic-Palaeozoic reservoirs, South China Block

**Zeyang Liu (Durham University)**

Investigation into the Controls of Rhenium-Osmium Fractionation in Organic- Rich Sedimentary Rocks: Implications for Re-Os Geochronology

**Maria Gusarevich (Imperial College)**

Thermal history of Resolution Guyot using paired clumped isotopes and radiogenic isotopes in Cretaceous carbonates

**Randall R Parrish (University of Portsmouth)**

How in situ U-Pb carbonate dating can improve the understanding of diagenesis and the deformation of carbonate rocks in basins, fold belts and fault zones.

**Ruth Davey (Imperial College)**

Shale Gas: Deciphering the Isotopic Code

## Poster Programme Day 2

**Julien Bourdet (CSIRO)**

Gas, salinity and temperature evolution of formation water in gas-rich basins

**D. K. Muirhead (University of Aberdeen)**

Making oil from Magma

**Glenn T. Morrall (University of Liverpool)**

A Multidisciplinary Re-assessment of Calcite Cement in Brent Reservoirs, Heather Field, Northern North Sea

**Neil S Meadows (Redrock Associates International Limited)**

Climatically and tectonically mediated fluvial architecture, Central Iberian Basin, NE Spain: application of chemostratigraphy for reservoir modelling.

**Alessandro Pozzi (Geolog)**

While Drilling Chemostratigraphy – Contribution to Reservoir Modelling with Well-site. Applications: Reservoir Zonation, Fractures Detection and Geosteering

**Michael J. Flowerdew (CASP)**

Dates through the ages: mineral fertility and bias in sedimentary provenance studies and some examples of how these may be identified and reduced.

**Adrian Neal (Badley Ashton and Associates Ltd)**

Detailed characterisation of deepwater reservoir heterogeneity using automated core mapping tools.

**T. Morgan (Chemostrat)**

Zircon geochronology, improving the understanding of the provenance of the Upper Carboniferous/Lower Permian sandstones in the SNS

**Nipada Santha (Durham University)**

CFM study of brine effect on adhesion of silica face kaolinite

**D. Grossa (Montanuniversitaet Leoben)**

Maturity and facies effects on the abundance of acidic compounds in Upper Visean black shales from the Dniepr-Donets Basin (Ukraine): Source rock characterization via electrospray ionization fourier transform ion cyclotron resonance mass spectrometry (ESI FT-ICR-MS)

**Marianne Nuzzo (Integrated Geochemical Interpretation Ltd)**

Hydrocarbon and noble gas geochemical survey in a mud volcano province: Insights into oil-water-gas interactions and gas hydrate occurrences in the subsurface

**Markus Doerner (University of Bergen)**

OG analytical methods in the Petroleum industry - Enhanced data density and method flexibility by multiple detector GC coupling