

Capturing Geoscience in Geomodels

26-27 June 2019 Robert Gordon University, Aberdeen

Provisional Programme

Day One	
	Registration
	Welcome
	Geomodelling Concepts
09.10	The Decline and Fall of Production Geology: How Geomodelling has poisoned Everything Juan Cottier, MMbbls
09.40	Modelling for Understanding Mark Bentley, TRACS Training
10.10	Honest and critical thinking: how to make approximately accurate geological models, whilst avoiding being precisely wrong Luke Johnson, <i>Cognetive</i>
10.40	Break
11.10	Multi-scenario modelling for Cambo field development planning, UK West of Shetlands Noah Jaffey, Shell
11.40	Rapid Reservoir Modelling: Prototyping of reservoir geoscience and development concepts using sketch-based interface and modelling M.D Jackson, Imperial College London
12.10	Al based property modelling calibrated by forward sediment simulation Colin Daly & Leigh Truelove, Schlumberger
12.40	Lunch
13.40	Geostatistics and data mining from digital outcrop models for reducing uncertainty in subsurface reservoirs David Hodgetts, <i>University of Manchester</i>
14.10	Machine Learning Methodologies Provide New Insights into the Reservoir in Seismic Interpretation Lorena Guerra, Emerson Automation Solutions
14.40	Modelling and Simulation of Heterogeneous and Anisotropic Reservoirs using a Fractal Approach Paul Glover, University of Leeds
15.10	Break
15.40	A methodology for differentiation of facies in the heterolithic Triassic of Culzean John Banks, <i>Total</i>



16.10	A hierarchical workflow conditioning facies models to well data and realistic connectivity Deirdre Walsh, iCRAG
16.40	Leveraging regional geology and conceptual models at the field and reservoir scale: building more reliable earth models under sparse data conditions Kate Evans, Halliburton
17.10	Finish
	Drinks Reception

Day Two	
	Registration
	Welcome
	Dynamic and Static Modelling
09.10	Re-developing an old oil field with a complex carbonate reservoir? A decision made on a new field model based on the integration of seismic, core, well logs, test and production data Raffalle Di Cuia, Delta Energy
09.40	What's inside the loop David Cox, BP
10.10	Petrophysical Uncertainties in Geomodels Alan Johnson, IPS Petrophysics
10.40	Break
11.10	Reducing uncertainty in reservoir models using structural modelling and analysis Freya Marks, <i>PETEX</i>
11.40	Uncertainty Modelling: Moving away from the 'Base Case' central tendency bias Smruti Ranjan Jena, <i>Chrysoar</i>
12.10	More than just a cracking reservoir! How modelling a highly faulted and fractured basement reservoir at high resolution can help understand fluid flow pathways and dynamic reservoir behaviour Dan Bonter, Hurricane
12.40	Lunch
13.40	Uncertainty: Battling our Bias Demons Greg Stone, Shell
14.10	A Benchmark of Sensitivity Analysis Methods to assess the Dynamic Impact of Structural and Petrophysical Uncertainties Gabriel Godfroy, <i>Total</i>
14.40	Reimagining History Matching in an Uncertainty Modelling Context Martha Stunell, Resoptima



15.10	Break
15.40	Lower Captain Sandstone: The Importance of Data Integration in Geocellular Modelling and History Matching Karl Charvin, Chevron Upstream Europe
16.10	Structural and Sedimentological controls on the performance of deeply buried aeolian gas reservoirs Sophie Behrendsen, <i>University of Aberdeen</i>
16.40	Closing remarks
	Finish

Poster Programme

Capturing Large Scale Conceptual Geology in the Enyenra Field

Douglas Obeng, Tullow Ghana Limited

Modelling for Answers, Not Comfort

Ingrid Demaerschalk, Tullow Oil

Assessing and communicating risk in early stage exploration: embedding regional understanding within basin modelling workflows

Natasha Dowey, Halliburton Landmark

Improving reservoir facies modelling with analogue databases

Simon Lomas, Petrotechnical Data Systems Ltd

The impact of structural and water saturation uncertainties on reservoir models Mark Verschuren, *Petrotechnical Data Systems Ltd*

Integration of forward stratigraphic modeling with Interpreted and geostatistical data for building better predictive reservoir models

Sergio Courtade, Schlumberger

Quantitative Analysis of 3D Sub Surface Modelling Updates While Drilling Simon Austin, Baker Hughes a GE company

New, Integrated Geology-to-Geomechanics Workflows Offer Production Risk Mitigation without Compromising Reservoir Complexity

Camille Cosson, Emerson Automation Solutions

Leveraging 4D Seismic into the Static Model: a Simple Approach in a Deep Water Lobe Reservoir, Paladio Field, Block 18, Offshore Angola

Neila da Costa Mendes, BP Angola

Integration of forward stratigraphic modeling with Interpreted and geostatistical data for building better predictive reservoir models

Sergio Courtade, Schlumberger

Applying Geological Process Simulation Outputs to Constrain Lithofacies Modeling in a Basinal Fan Geological Setting: An Example

Daniel Otoo, *University of Manchester*

Reproducing net:gross and amalgamation ratios in rule-based models of deepwater lobe systems

Javier Lopez-Cabrera, University College Dublin



Increasing the Value of Virtual Outcrops for Geocellular Reservoir Modelling J.R. Mullins, *The University of Aberdeen*

Bridging the Gap between Rocks and Recoverables in Tight Gas Behrooz Bashokooh, *Shell*

Surface-based reservoir modelling: Generating realistic geological heterogeneity for reservoir modelling and simulation

Carl Jacquemyn, Imperial College London

What's in a name? That which we call shale by any other scale we'd not... Samuel P. Graham, *Newcastle University*

Virtual Outcrop-based analysis of channel and crevasse splay sandstone body architecture in the Middle Jurassic Ravenscar Group, Yorkshire, NE England M. Mostafizur Rahman, *University of Aberdeen*

The SAFARI Project – A Database of Reservoir Analogues
John Howell, *University of Aberdeen*

Building a discrete fracture network model from vintage data in old oil fields: a case from the Southern Apennine hydrocarbon province
Paolo Pace, GR Plan

Integrated structural, sequence stratigraphic and basin modelling approach of a clastic reservoir characterization in the Sub-Andean Tarija Basin (Bolivian) Richard James, *Halliburton*

Assessing and communicating risk in early stage exploration: embedding regional understanding within basin modelling workflows

Natasha Dowey, Halliburton

Novel 2D/3D seismic forward modelling of the seal bypass structure: an example from the Loyal field of the North Sea (Scotland, UK)
Zhihua Cui, *University of Aberdeen*

Three-dimensional modelling of volcanic facies architecture; the application of virtual outcrops to aid stratigraphic interpretation and prediction

Jessica H. Pugsley, *University of Aberdeen*

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