



Interplay of heatflow, subsidence and continental break-up: a case study workshop


8-9 October 2018

The Geological Society London

CONFERENCE PROGRAMME

Day One	
08.30	Registration
09.00	Welcome and overview summary
Framework Sessions	
09.30	KEYNOTE: Heatflow and subsidence at distal rifted margins: achievements and future challenges Gianreto Manatschal, <i>Université de Strasbourg</i>
10.00	KEYNOTE: Integrated subsidence analysis as the foundation for predictive petroleum systems modelling: why thermal boundary conditions require whole-lithosphere modelling. Lorcan Kennan, <i>Shell</i>
Session One: Case Studies: Paleo Heat Flux: Insights from industry boreholes	
10.30	Thermal regime Deep Water Sergipe and Potiguar-Ceara Basins Brazil related to fracture zones, active faults and volcanism. Observations from wells and seismic data applied to Petroleum Systems Modeling <i>Fausto Mosca, Murphy Oil</i>
10.50	Break and Posters
11.20	The Thermal History of Benguela Basin: Observations and Effects <i>Alex Bump, BP</i>
11.40	Thermal model uncertainties in the Deep Water Gulf of Guinea off eastern São Tomé and Príncipe Islands <i>Christian Niño, GALP</i>
12.00	BREAK OUT SESSION (Groups)
12.30	FEEDBACK SESSION (Together)
13.00	Lunch
Session Two: Case Studies: Present day Heat Flux: Insights from surface heatflow or shallow boreholes	
14.00	Pre-, syn-, and post-rift lateral variability in heat flow along the Labrador Sea <i>Mohamed Gouiza, Univeristy of Leeds</i>
14.20	Thermal evolution of hyperextended margins: the examples of Iberia-Newfoundland and northern South China Sea rifted margins <i>Michael Nirrengarten, Total</i>
14.40	Heat Flow variability across the offshore Brazilian Margin: Implications on basin modelling <i>Stefan Punnette, BP</i>
15.00	Break and Posters



15.30	BREAK OUT SESSION (Groups)	
16.00	FEEDBACK SESSION (Together)	
16.30	Analysing heat flow and subsidence along a passive margin from thermal history reconstruction - a Case Study from the Eastern Gulf of Guinea (Rio Muni/Douala Basin) Richard Bray, <i>Subsurface Research Consulting</i>	
16.50	Estimating palaeoheat flow onshore east Greenland Kerry Gallagher, <i>Université de Rennes</i>	
17.10	Finish Wine Reception and Posters (Sponsored by Woodside Energy)	
18.30	Optional Workshop Collaboration Dinner (additional charge)	

Day Two		
08.30	Registration	
09.00	KEYNOTE: Residual Depth Anomalies, Heatflow and Mantle Convection at Rifted Margins Nicky White, <i>University of Cambridge</i>	
	Session Three: Modelling Case Studies	
09.30	Analysis of subsidence in a new-real estate domain: the sedimentary prism approach Antoine Clausse, <i>Total</i>	
09.50	Heat Flow Modeling in Hyper Extended Crust Basins: Chidley Basin Case Study, South Labrador Canada Guillermo Perez Drago, <i>Beicip</i>	
10.10	Break and Posters	
10.40	Present day lithospheric structure along a slowly rifted passive margin: Otway Basin, SE Australia. Thermal implications for hydrocarbon prospectivity Daniel Palmowski, <i>Schlumberger</i>	
11.00	Modelling Petroleum Systems of Hyperextended Margins: the Angola Case Study Roger Baudino, <i>REPSOL</i>	
11.20	BREAK OUT SESSION (Groups)	
11.50	FEEDBACK SESSION (Together)	
12.10	Lunch	
	Session Four: Insights from Numerical Modelling	
13.00	Numerical models of heat flow and subsidence evolution during rifted margin formation Sascha Brune, <i>GFZ Potsdam</i>	
13.20	Margin architecture, sediment structure and heat flow at rifted margins Marta Pérez-Gussinyé, <i>University of Bremen</i>	
13.40	The Highs and Lows of Continental Break-Up Dave Quirk, <i>University of Manchester</i>	
14.00	Improved Temperature Models for Petroleum System Analysis Daniel W. Schmid, <i>Geomodelling Solutions</i>	
14.20	BREAK OUT SESSION (Groups)	



14.50	FEEDBACK SESSION (Together)
15.20	Break and group discussion
15.50	FEEDBACK SESSION (Together)
16.15	Group Discussion on how we move forward/collaboration/gaps in knowledge/future meetings
16.45	Closing remarks and finish

Posters Day 1

<p>The Thermal Regime of African Plate Margins Duncan McGregor, <i>Mcgeology Ltd</i></p> <p>Thermal histories during Subsidence and Uplift, and Kinetic Modelling of Petroleum Generation, as controlled by Mechanics and Thermodynamics; Case Studies from the UK Central Graben and Uinta Basin USA Andy Carr, <i>Global Exploration Systems Ltd</i></p> <p>The value of deep seismic data: An example from North Western Australia that exposes ancient in-place oceanic lithosphere Paul Bellingham, <i>Ion Geophysical</i></p> <p>Seismic images of the Opal A/CT transition as a geo-thermometer: Post-rift geotherm in Rockall Trough strongly modified by pore-fluid convection above igneous sills Stephen Jones, <i>University of Birmingham</i></p> <p>Magma-rich breakup without plume control; lessons from compared W and E Indian margins Michal Nemcok, <i>EGI</i></p>

Posters Day 2

<p>Effect of mantle buoyancy on tectonics and subsidence during rifting. Insights from long-term 2-D geodynamic modelling Theunissen Thomas, <i>University of Bergen</i></p> <p>Enigmatic thermal pulse and subsidence retardation during early stages of lithosphere thinning explained by asynchronous depth-dependent necking Pauline Chenin, <i>Université de Strasbourg</i></p> <p>New insights from modern deep seismic into the mechanics and rheology of the crust during back-arc rifting, propagator rifting and a ductile transition from rift to drift. The tectonic architecture and evolution of the Offshore Papuan Plateau, PNG Jean-Claude Ringenbach, <i>Total</i></p> <p>A Bayesian approach to inverse thermal history modelling in sedimentary basins and the inference of erosion Andrea Licciardi, <i>Université de Rennes</i></p> <p>The structure and nature of the basement at magma-poor rifted and hyper-extended margins Tim Reston, <i>University of Birmingham</i></p> <p>Dynamic Topography and Rifting: A Global Model N. Hodgson, <i>Spectrum</i></p> <p>Ark-CLS Poster Wyville-Thomson Ridge Modelling Bennett Haworth, <i>Ark</i></p>
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