



# New Thinking, New Technology, New Hydrocarbons

JOIN US AT THE

**BUSINESS DESIGN CENTRE, LONDON  
ON 31 AUGUST - 1 SEPTEMBER 2017**



**SASOL**  
reaching new frontiers



This annual event, alternating between London and Houston, has established itself as the premier event for technical discussions and networking on exploration and geosciences in Africa.

The 2015 London conference was the largest event to date with 624 delegates in attendance including operators, consultants, governments and academia. There were 34 technical papers presented in a high quality oral programme, 30 poster presentations, complemented by a bustling show floor with 61 exhibitors.

## Early Bird Registration closing soon at [pesgb.org.uk](http://pesgb.org.uk)

### Member

Early Bird £330 / Standard from 1 July £420

### Non Member

Early Bird £390 / Standard from 1 July £480

*There will be a limited number of discounted places for those who have been made unemployed.  
Please contact [events@pesgb.org.uk](mailto:events@pesgb.org.uk) to apply*

### EVENING LECTURE: AFRICA SPECIAL

Tuesday 29 August 2017, The Geological Society of London

"Gondwana re-assembled:

Challenges for making the new map and insights for exploration"  
With Colin Reeves, Earthworks

**FREE** but registration required at [www.pesgb.org.uk](http://www.pesgb.org.uk) - open to PESGB members and African E&P Conference delegates

**THURSDAY 31 AUGUST 2017****08.30****REGISTRATION & COFFEE****09.20****WELCOME & INTRODUCTION****09.30****SESSION 1: NEW INSIGHTS INTO YOUNG RIFTS**

Session Chairs: Jerry Jarvis

KEYNOTE: Contrasting fault and rift basin evolution in the East Africa Rift:  
Role of magmatism and magmatic volatile release  
*James Muirhead, University of Syracuse*

**09.55**

Continental breakup, the final stretch: seismic reflection and borehole evidence from the Danakil Depression, Ethiopia  
*Craig Magee, Imperial College London*

**10.20**

A holistic reappraisal of the geological evolution of the Tertiary East African Rift System, Kenya; understanding the controls on basin evolution and petroleum play development  
*Scott Thackrey, Maersk*

**10.45****REFRESHMENTS & POSTERS****11.15****SESSION 2: NEW INSIGHTS ON THE EVOLUTION OF THE DISTAL DOMAIN**

Session Chairs: Helen Doran &amp; Nick Kusznir

KEYNOTE: Applying hyperextended models to rifted margins:  
The lessons learned from the African Margins  
*Gianetro Manatschal, Université de Strasbourg*

**11.40**

Extending the Gabon preSalt play towards the Continent-Ocean Transition in the South Gabon basin; defining a structural sweetspot developed by the interaction of a major transfer zone with synrift faulting  
*Myron Thomas, Shell*

**12.05**

New Evidence Supports Presence of Continental Crust beneath the Comoros  
*Phil Roach, Bahari Resources*

**12.30****LUNCH & POSTERS****13.45****SESSION 3: NEW TECTONIC MODELS AND PLAYS IN WEST AFRICA**

Session Chairs: Matt Warner &amp; Ian Davidson

The occurrence of source rocks and their maturity history over oceanic crust along the West African margin  
*Steve Lawrence, Geox*

**14.10**

Exploration in the Deep Water Gulf of Guinea off eastern São Tomé and Príncipe Islands, a High Thermal Regime Setting  
*Christian Niño-Guiza, GALP*

**14.35**

Insights into the Deepwater of Côte d'Ivoire (Equatorial African Margin)  
*Nicola Scarselli, Royal Holloway*

**15.00**

Igneous intrusion on the Ghana Transform Margin; a nasty sting in the tail?  
*Gavin Elliott, Lukoil*

**15.25****REFRESHMENTS & POSTERS****16.00****SESSION 4: NEW TECTONIC MODELS AND PLAYS IN NORTH AFRICA**

Session Chairs: Richard Blight &amp; Harry Davis

Structural History of the North African Margin: Insights into the Prediction of Offshore Plays  
*Sigrún Stanton, Halliburton*

**16.25**

Basin Geometry, Tectonic Development and Prospectivity of the West Alboran Basin  
*John Aitken, Mubadala Petroleum*

**16.50**

A discussion on new play potential within the offshore Sirt Basin, Libya, from newly acquired long-offset, mega-regional and newly reprocessed 2D seismic data  
*Elisabeth Gillbard, ION*

**17.15**

Regional uplift, unroofing and hydrocarbon migration, charge and dispersal, Libya  
*David Boote, David Boote Consulting Ltd & Reem Aboushoug*

**17.40****EVENING RECEPTION**

FRIDAY 1 SEPTEMBER 2017

**SESSION 5: NEW TECTONIC MODELS AND PLAYS IN EAST AFRICA**

Session Chairs: Louise Hornby

09.00

KEYNOTE: Somali Basin's crustal structure and post-rift deformation: a recorder of Madagascar and India drifts

*Jean-Claude Ringenbach, Total*

09.25

Impact of Tertiary Tectonic Activity on the Petroleum System, Offshore Tanzania/Mozambique, East Africa

*Niall Sayers, Shell*

09.50

Offshore Somalia: Defining crustal type and its implications for prospectivity

*Hannah Kearns, Spectrum*

10.15

**REFRESHMENTS & POSTERS****SESSION 6: NEW SEDIMENT BUDGET STUDIES AND THEIR IMPLICATIONS FOR PROSPECTIVITY**

Session Chairs: Madeleine Raven &amp; Toya Latham

10.45

KEYNOTE: Controls on Sand Supply &amp; Seal Quality in Cretaceous Deepwater Reservoirs along the Equatorial Atlantic Margin from Ghana to Guyana

*Anne McAfee, Core Lab*

11.10

The Lake Albert Rift (Uganda, East African Rift System): sediment budget, deformation, basin and relief evolution since 17 Ma

*Brendan Simon, Rennes*

11.35

Integrated paleoecology as a tool for the definition of the paleo environmental evolution: applications from the Tertiary successions offshore Eastern and Western Africa

*Andrea Piva, Eni*

12.00

Re-evaluation of Reservoir Quality and Distribution on the Sierra Leone Margin

*Raymond Kargbo, Petroleum Directorate Sierra Leone*

12.25

**LUNCH & POSTERS****SESSION 7: NEW DEVELOPMENTS IN SEISMIC RESERVOIR DEFINITION**

Session Chairs: Fabio Lottaroli &amp; Piet Lambregts

14.00

KEYNOTE: Sedimentology and Architecture of Deepwater Turbidite Systems Offshore Mozambique – from Concept to Application

*Daniel Bendias & Fabio Contreras, Eni*

14.35

Turning exploration inside out: facies prediction for Ayame-1X, Côte d'Ivoire

*Will Parsons, Ophir Energy*

15.00

Giant Pockmark-initiated slope channel complexes: Jubilee basal reservoir topography and reservoir zone confinement as a concept for basal slope channel reservoir morphology

*Bryan Cronin, Tullow*

15.25

Geophysics of the SNE Field, Senegal

*Wytze de Boer, Cairn Energy*

15.50

What's next for E&amp;P in Africa?

*Keith Myers, Westwood Global Energy Group*

16.15

**AWARDS CEREMONY**

16.25

**CLOSING ADDRESS & INVITATION TO HOUSTON 2018****ORGANISING COMMITTEE**

Ray Bate (Chair),

Helen Doran, Duncan Macgregor, Richard Dixon, Kevin Dale and Ian Poyntz

**TECHNICAL COMMITTEE**

Helen Doran (Chair),

Harry Davis, Jerry Jarvis, Fabio Lottaroli, Ken McDermott, Louise Hornby, Madeleine Raven, Jason Sutton, Matt Warner, Richard Blight and Toya Latham



# INTERACTIVE SESSION: SEISMIC WORKSHOP

## THURSDAY 31 AUGUST 2017

### CHAIRMAN'S WELCOME

Session Chairs: Ken McDermott & Jason Sutton

09.20

09.30

The MSGBC Basin - A Seismic Data workshop demonstration  
*Ben Sayers, TGS*

10.30

Hunting turbidites in the Walvis Basin, offshore Namibia  
*Anongporn Intawong, Spectrum*

11.30

Shallow water Congo; the imaging and geological challenges of unlocking overlooked pre-salt prospectivity  
*Matt Tyrell, PGS*

12.30

### LUNCH & POSTERS

13.30

tbc  
*Ikon Science*

14.30

Plays and Remaining Potential in the Offshore Niger Delta  
*Paul Bellingham, ION*

15.30

Mapping the structure of the Ocean-Continent Transition and location of the Continent-Ocean Boundary on the margins of the African Central & Equatorial Atlantic: Regional overview & focus on the Morocco-Canaries margin  
*Alan Roberts, Badley Geoscience Ltd & Nick Kusznir, University of Liverpool*

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Illustrating the value of accelerated interpretation products in supporting exploration decisions in the Angoche basin, offshore Mozambique  
*David Barlass, Western Geco*

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## NEW TECHNOLOGY: IMPROVEMENTS IN GEOPHYSICAL IMAGING

Use of Spectral Decomposition for Pre-development planning in the Kigogole, Nsoga, Ngege Complex, Buliisa, Uganda

*Teresa Redondo-López, Tullow Oil*

Imaging buried channel systems under a complex overburden: the Fortuna region, offshore

*Juergen Fruehn, ION*

Integration of high resolution gravity and seismic data interpretation techniques in onshore frontier hydrocarbon exploration: Examples from the East African Rift

*Cameron Hamilton, Maersk Oil*

Thermal modelling based on BSR derived heat flow and velocity-conductivity transform in the Luderitz Basin, offshore Namibia

*Arkadyuti Sarkar, University of Manchester*

Seismic characterization of gas hydrates and associated fluid flow features in the Lüderitz Basin, offshore Namibia

*Benedict Campbell, University of Manchester*

An approach to Smart Seismic : New Ultra High Resolution Gravity and how to use it effectively

*Jonathan Watson, Austin Bridgeport*

## NEW INSIGHTS INTO AFRICAN RESERVOIRS

Provenance of Late Cretaceous clastic sediments along the rifted margin of northwest Africa, Guinea, Sierra Leone, and Liberia

*Ken Nibbelink, Hyperdynamics*

Depositional Facies and Reservoir Quality in the Pre-Salt Succession of the Kwanza Basin, Offshore Angola

*Marius Popa, Corelabs*

Source rock and reservoir evaluation in Madagascar: insights from new fieldwork and outcrop analyses

*Meghan O'Neill, Robertson CGG Services*

The Case for Lower Cretaceous Sand-Rich Clastic Systems Offshore Northern Morocco, with Potential for both Shallow Marine and Deeper Water Turbidite Prospectivity

*Duncan Wallace, Chariot*

Petrographic characterisation of the Pre-Salt microbialite in the Kwanza Basin, Angola

*N Rochelle-Bates, University of Manchester*

Syn-rift lacustrine carbonates; cycles, microbial mounds, and brackish to hypersaline facies models; Purbeck Group, Wessex Basin, UK. Analogues for south Atlantic pre-salt carbonates?

*A Gallois, University of Royal Holloway*

An integrated source to sink analysis of Early Cretaceous depositional systems along the Central Atlantic Margin

*Tim Luber, University of Manchester*

Geochemical Modeling of Lake Water Evolution and Carbonate Deposition During the African Humid Period Highstand, Lake Turkana, Kenya

*Laura DeMott, University of Syracuse*

Emerging Early Cretaceous Carbonate Plays, Offshore Namibia

*Graham Pritchard, Serica Energy*

Sedimentology and Diagenesis of the Middle Jurassic Lugoba Carbonates Succession, Ruw Basin, Coastal Tanzania

*Agnes Matulanya, University of Dar es Salaam*

Integrated petrographic analyses for the study of oil, gas and geothermal reservoirs. Examples from the "Turkana Grits" of the Northern and Central Kenya Rifts

*Salvatore Morano, Morano Petrography*

Application of a new type of sea-level curve based on Strontium-Oxygen isotopes to the AGC sub-basin, Senegal/Guinea-Bissau

*Douwe Van der Meer, Nexen Petroleum U.K. Limited*

Turbidites v Contourites: hybrid systems of the Tanzanian margin

*Pamela Sansom*



## NEW INSIGHTS INTO AFRICAN TECTONICS AND BASIN EVOLUTION

Exhumation and sediment production during the late syn-rift and early post-rift evolution of the Moroccan Atlantic margin

*G. Bertotti, Delft University of Technology*

Post-rift vertical movements of the southern african margins -implications for the south African plateau uplift

*G. Baby, Université Rennes*

Deep Lacustrine Sedimentary Fills in Multi-Segmented Rift Basins: Insights from 3D Forward Modeling

*Chengcheng Zhang, University of Syracuse*

The Karroo Corridor, Madagascar and the Perth Basin, Western Australia: their remarkable similarities, and potential cross-basin learnings

*Peter Jeans, PJ Exploration Ltd*

New Ideas Applied to the 1988, A-J1 Rift, Discovery West Coast, South Africa

*Paul Burden, Africa Energy SA Corp*

Morondava Basin, Offshore Madagascar: its Oil and Gas prospects, play fairways and the Golden Zone

*Glyn Roberts, Spec Partners*

Tectono-Stratigraphic Framework and Paleostress Modelling of the East African Margin

*Amy Tuck-Martin, University of Royal Holloway*

How Renewed Southern African Gravity and Magnetic Data Provide Fresh Insights into Basin Evolution and Prospectivity

*Jean A. Malan, Getech*

Seismic geomorphology of cretaceous megaslides offshore Namibia (Orange Basin): Insights into segmentation and degradation of gravity-driven linked systems

*Nicola Scarselli, University of Royal Holloway*

Offshore Benin; remaining potential and overlooked leads revealed by the application of a sequence framework, play mapping and rock physics to integrated well and seismic data

*Matt Tyrrell, PGS*

Future giant discovery in the Outeniqua Basin, offshore South Africa

*Anongporn Intawong, Spectrum*

Periclinal folding, faulting and trap formation, relation to shearing. Part of Sabratah Basin west offshore Libya

*G.Reeh, Target Exploration*

Regional clutch tectonic décollement mechanism revealed through the close congruence of two pairs of hitherto unrelated geological features in West Central Africa (Nigeria, Cameroon and Niger)

*Vaughan Stone*

Uncovering and predicting pre-salt reservoir facies in the Kwanza and Namibe Basins using a West Africa sequence stratigraphic framework

*Matt Tyrrell, PGS*

Northwest Africa: The Roadmap from Giant Discoveries to Hidden Treasures

*Karyna Rodriguez, Spectrum*

The Tugela and Transkei Margins, South Africa : A Frontier Hydrocarbon Province of Scale?

*Rebecca Jones, Gaffney Cline & Associates*

## NEW PLAYS IN THE PROXIMAL DOMAIN

Hydrocarbon properties of the prolific lacustrine South Lokichar Basin, East African Rift System, Kenya  
*Henrik I. Petersen, Maersk Oil*

New Tectonostratigraphic Framework for NW Madagascar: Applications for the Frontier Exploration of Deep-water Basins  
*Mark Enfield, EPI Group*

Hydrocarbon potential of the Onshore Dahomey Embayment of Benin; exploration of Paleozoic, Cretaceous and Tertiary plays using integrated seismic and high resolution airborne gravity & magnetic data  
*Ewan Rossiter, Elephant Oil*

The Lost Art of Fieldwork: A cost effective strategy for unlocking African prospectivity  
*Matthew Watkinson, EPI Group*

Morphometric characteristics of oil vs water expulsion craters (pockmarks) offshore Angola  
*Hugo Putuhen, University of Manchester*

Controls on the source rock development during Cenomanian-Turonian oceanic anoxic event in Morocco  
*Jianpeng Wang, University of Manchester*

Geothermal gradient anomalies of hydrocarbon entrapment of central Sirte basin, Libya: a mature basin rejuvenation technique  
*M W. Ibrahim, Target Exploration Consultants*

A Preliminary Geothermal Gradient Map of the African Plate  
*Duncan Mac Gregor, Macgeology*

Understanding sedimentary and volcanic interactions in the Blue Nile Basin, Ethiopia: Implications for prospectivity along the East African Rift System  
*Simon Passey, CASP*

## NEW PLAYS IN THE DISTAL DOMAIN

Exploration potential of a volcanic rifted margin: examples from the Southern South Atlantic  
*Jonathan Wood, Shell*

Breaking up is never easy; Exploration of Distal and Proximal domains, the consequences of differing Subsidence History in North Gabon  
*Aoife Carr, Ophir Energy*

Libya: Below The Salt  
*Neil Hodgson, Spectrum*

Tectonic Context of Aptian Salt Deposition on the N.Angolan Rifted Margin: Palaeobathymetry, Subsidence and Basement Composition  
*Nick Kusznir, University of Liverpool*

New Insights into the Petroleum Potential of Sierra Leone  
*Raymond Kargbo, Petroleum Directorate Sierra Leone, Sierra Leone/ERCL*

Vertical Lithospheric Motion from Shallow Mantle Convection: Example from Cape Verde to West Africa, with implications for hydrocarbon generation  
*Bhavik Harish Lodhia, Imperial College*

Impact of Cretaceous Volcanism and Implications for Hydrocarbon Prospectivity, offshore North Gabon Basin  
*Alexander Peter Kurobasa, Earthmoves Ltd*

**Posters will be available to view on the exhibition floor throughout the show**