

## **Petroleum Systems Modeling Workshop** ***Challenges of structurally complex basins***

Novotel, Rueil-Malmaison, 15-16 June 2017

### **Thursday 15 June**

8.30 [Opening of the welcome desk](#)

9.00 [Beginning of the workshop](#)

#### **Session 1 – Geodynamics and basin modeling**

Chairpersons : Sascha Doering (ENI, Italy), Claudius Vandr  (Statoil, Norway)

[Influence of dynamic topography on the evolution of the Australian landscape since the Late Jurassic](#)  
T. Salles<sup>1</sup>, N. Flament<sup>2</sup>, R. D. M ller<sup>1</sup>

1 EarthByte Group, School of Geosciences, The University of Sydney, Australia ; 2 School of Earth and Environmental Sciences, University of Wollongong, Australia

[Integrated analysis of seismic refraction and reflection, subsidence and thermal blanketing: implications for heatflow and charge modeling of the Exmouth Plateau, Northwest Australia](#)

L. Kennan, C. Willacy, I. Brown, Shell, The Netherlands

[The importance of lithospheric thickness as a boundary constraint on temperature prediction](#)

S-A. Clark, R. Khabbaz Ghazian, Z. Tasarova, K. Hokstad, R. Kyrkjeb , Statoil, Norway

[Thermal modeling in deep and ultra-deep offshore areas : from concepts to basin modeling practice](#)

F. Lorant, Total, France

[Fire and Ice: application of geodynamic thinking into petroleum system models](#)

E. Hvideg rd Hartz<sup>1,2</sup>, S. Medvedev<sup>2</sup>, D. W. Schmid<sup>3</sup>, J. I. Faleide<sup>2</sup>, K. Iyer<sup>3</sup>, J. E. Skeie<sup>1</sup>

1 AkerBP, Norway ; 2 Centre for Earth Evolution and Dynamics, University of Oslo, Norway ; 3 GeoModelling Solutions, Switzerland

#### **Lunch**

#### **Session 2 – Towards coupling structural modeling, geomechanics and basin modeling**

Chairpersons : Johannes Wendebourg (Total, USA), Marie-Christine Cacas-Stentz (IFPEN, France)

[From structural 3D restoration to petroleum system modeling](#)

J-L Rudkiewicz, J. F. Lecomte, D. Colombo, I. Faille, IFPEN, France

[Towards a coupled restoration/forward geomechanical modeling workflow for basin evolution prediction](#)

A. J. L. Crook<sup>1</sup>, J. Obradors-Prats<sup>1</sup>, D. Somer<sup>2</sup>, D. Peric<sup>2</sup>,

1 Three Cliffs Geomechanical Analysis Ltd, Swansea University, UK ; 2 Swansea University, UK

[Coupling petroleum system and geomechanics at basin scale](#)

T. Cornu<sup>1</sup>, A. Bouziat<sup>2</sup>, D. Colombo<sup>2</sup>, J. Frey<sup>2</sup>, N. Guy<sup>2</sup>, M-C. Cacas-Stentz<sup>2</sup>

1 Total, France ; 2 IFPEN, France

Fully coupled poro-mechanical basin models for pressure and effective stress prediction, with application to a mini-basin in voluminous salt

P. Lovely<sup>1</sup>, M. Kacwicz<sup>1</sup>, T. Crook<sup>2</sup>, J. Obradors<sup>2</sup>

1 Chevron, USA ; 2 Three Cliffs Geomechanical Analysis Ltd, Swansea University, UK

Bridging the gap between basin and geomechanics models: how to integrate real mudrocks?

T. Harrold, Repsol, Spain

18.30 **Departure for the cocktail reception – *Domaine de Vert-Mont*, Rueil-Malmaison**

## Friday 16 June

8.30 Opening of the welcome desk

9.00 Beginning of the workshop

### Session 3 – Integration of geopressure, geomechanics and seismic

Chairpersons : Marek Kacwicz (Chevron, USA), Fadi Henri Nader (IFPEN, France)

Geophysical basin modeling: methodology and application in complex geological settings

G. De Prisco & al. Statoil, USA

Integrating basin modeling and rock physics to predict reservoir rock lithofacies and chemical diagenesis effects on overpressure

W. Alkawai, A. Hosford Scheirer, T. Mukerji, S. A. Graham, Stanford University, USA

New workflows for pore pressure prediction integrating basin modeling and seismic imaging

M. Kacwicz, Chevron, USA

Contribution of carbonate diagenesis to basin thermicity and barometry appraisal in sedimentary basins

M. Gasparrini & al. IFPEN, France

### Lunch

### Session 4 – Integrated BM workflow

Chairpersons : Pierre Van Laer (Adnoc, UAE), André Vayssaire (Repsol, Spain)

Workflow to model non uniaxial effects into uniaxial basin models at early stage exploration, while keeping the model as simple as possible

T. Harrold, S. Martinez, A. Vayssaire, P. Rouillé, O. Fernandez, Repsol, Spain

Secondary hydrocarbon migration in complex multi-carrier settings - some practical insights

S. Doering, S. Castellani, Eni Upstream & Technical Services, Italy

3D numerical stratigraphic forward modeling of fits: characterizing reservoir presence risk

A. D. Harris<sup>1</sup>, P. J. Lovely<sup>1</sup>, S. E. Baumgardner<sup>1</sup>, K. Ghayour<sup>1</sup>, T. Engelder<sup>1</sup>, T. Sun<sup>1</sup>, R. P. Lyons<sup>1</sup>, D. Granjeon<sup>2</sup>

1 Chevron, USA ; 2 IFPEN, France

17.30 Closing of the workshop