

DAY 1 TUESDAY 12th MAY 2020

** presenting author. Affiliation shown for lead (presenting) author only*

8.50 Introduction and Welcome: Cathy Hollis

Session 1 Sedimentological evaluation of carbonate platforms

Chair: Peter Burgess

9.00 Morphology and Depositional Architecture of a Miocene Carbonate Platform, Central Luconia: An Insight from wave pattern analysis

Muhammad Hanif Haziq*, D.A. Uli, Dr. Z. Z. T. Harith, M.M.H. Mohammad, G. Primadani, A. Kolupaev, S.Fun, Z.Mohammad, G. Primadani & J. Margotta

Beicip-Franlab, Asia

9.20 Sedimentary evolution and vertical movements of Cenomanian to Santonian carbonate platforms in Iberia

Nicolas Saspiturry*, Simon Andrieu, Marine Lartigau, Benoit Issautier, Paul Angran, Eric Lasseur and Tiago M. Alves

Université Bordeaux Montaigne, France / University of Cardiff, UK

9.40 Seismic-scale coral carpets on a mixed carbonate-siliciclastic shelf; a sedimentological study from the Lower Cretaceous of NW Africa

Orrin Bryers*, Jonathan Redfern, Luc Bulot & Aude Duval-Arnould

University of Manchester, UK

10.00 Geometric changes of carbonate platforms through the Miocene and implication to changes in modes of production; Eratosthenes Seamount, Eastern Mediterranean

Or Bialik*, Thomas Lüdmann, Yizhaq Makovsky, Giovanni Coletti, Aaron Meilijson, Nicolas Waldmann, Axel Ehrhardt, Christian Hübscher, Christian Betzler

University of Hamburg, Germany / University of Haifa, Israel

10.20 A 3D Outcrop and Laboratory Study of a Jurassic Carbonate Ramp: the Hanifa Formation, Central of Saudi Arabia

Ahmad Tayeb*, John Howell, Alexander Brasier, Mohammed Khalil

University of Aberdeen, UK

10.40 BREAK

Session 2 Sedimentological processes

Chair: Stephen Lokier

11.00 Along-strike sedimentological variability of calcareous tempestites

Thomas Haines*, Joyce Neilson

Independent / University of Aberdeen, UK

11.20 Sedimentological study of Miocene coral carbonate facies in the Syracuse area (Sicily)

Claudia Morabito*

University of Ferrara, Italy

- 11.40 Spatial self-organization and autogenic dynamics of peritidal carbonate system: insights from stratigraphic forward modelling
Haiwei Xi* and Peter Burgess
University of Liverpool, UK
- 12.00 Tracing the origins of marine epiphytic environments: new insights from Upper Triassic shallow water carbonates of the Yukon, Canada
Nicolo del Piero*, Sylvain Regaud, Rossana Martini
University of Geneva, Switzerland
- 12.20 Sensitivity Analysis of the Amplitude of Early Cretaceous Short-Term Eustatic Changes Using Forward Stratigraphic Modelling (Resolution Guyot, Mid-Pacific Mountains)
Mahmoud El Yamani*, Cedric M. John, and Rebecca E. Bell
Imperial College, University of London, UK
- 12.40 LUNCH, POSTERS AND BREAK OUT DISCUSSIONS**
- Session 3 Microbial and non-marine carbonates**
- Chair: Rachel Wood**
- 13.30 Analysing statistical properties and heterogeneity of Holocene freshwater dolomites from Hungary using CT data
Nour Alzoubi*, Sandor Gulyas, Janos Geiger
University of Szeged, Hungary
- 13.50 Microbial versus abiotic controls on Mg- and Ca-carbonate precipitation and diagenesis: Insights from a modern hydromagnesite-magnesite playa, Atlin, BC, Canada
Tom Kibblewhite* Emily Junkins, Fiona Whitaker, and Bradley Stevenson
University of Bristol, UK
- 14.10 Deposition of the pre-Salt microbialite in the Kwanza Basin, Angola
Nathan Rochelle-Bates*, Stefan Schroeder, Richard Dixon
University of Manchester, UK
- 14.30 Depositional environment and diagenesis in the Barra Velha Formation deposits at Brazilian pre-salt: new insights from carbon and oxygen isotope analyses
JP Gomes*, A.C.L. Sartorato, L.R. Tedeschi, S.N. Tonietto, M.E. Tucker, F.F. Whitaker
University of Bristol, UK / Petrobras Brazil
- 14.50 Petrological, geochemical and morphological characteristics of modern and ancient lacustrine microbial carbonates of the Iberian Peninsula
Connor Doyle* Stefan Schröder, Juan Pablo Corella, Blas Valero Garces, Julia Behnsen
University of Manchester, UK
- 15.10 BREAK**

16.00 **Keynote:** Flow in porous materials: a of tale X-rays, minimal surfaces and wettability

Martin Blunt, Imperial College London, UK

17.00 **SOCIAL AND GENERAL DISCUSSION**

18.00 **CLOSE**

DAY 2

WEDNESDAY 13th MAY 2020

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9.00 **Keynote:** The chemical history of seawater: insights from marine carbonates

Ashleigh Hood, University of Melbourne, Australia

Session 4 **Past climates**

Chair: Rachel Wood

10.00 The control of PO₄ on Neoproterozoic marine carbonates

Sacha Roest-Ellis*, R. Pietzsch, O. Gaitonde, J. Strauss, J. Richardson, S. Webb B. Phillips & N. Tosca

University of Oxford, UK

10.20 A Cretaceous alkaline lake as an analogue for the prebiotic P-cycle?

Raphael Pietzsch*, Sascha Roest-Ellis, Nicholas J. Tosca

University of Oxford, UK

10.40 Dating records of past seafloor methane emissions along the US Atlantic margin

Diana Sahy*

British Geological Survey, UK

11.00 mixing of continental water masses in the Hampshire basin during MeCO₂: new insight from carbonate clumped isotopes

Marta Marchegiano* and Cedric John

Imperial College, University of London, UK

11.20 Dating carbonates with in situ U-Pb geochronology (POSTER)

Nick Roberts

British Geological Survey, UK

11.25 **BREAK**

Session 5 **Platform scale and fault controlled fluid flow**

Chair: Fiona Whitaker

11.40 A method for constraining fluid advection rates on carbonate platforms using calcium and clumped isotopes

Philip Staudigel*

University of Cardiff, UK

12.00 Controls on the Localisation of Fault/Fracture Controlled Dolomitization: insights from the Derbyshire Platform, Lower Carboniferous, UK

Catherine Breislin*, Cathy Hollis, Ian Millar, Vanessa Banks, James Riding

University of Manchester, UK

12.20 High temperature fault-controlled dolomitization by convection of seawater: concept evaluation using reactive transport modelling

Rungroj Benjakul*, Cathy Hollis, Hamish A. Robertson, Eric L. Sonnenthal, Fiona Whitaker

University of Bristol, UK

- 12.40 Reconstructing fluid circulation pathways in volcanically influenced settings: a case study from the Namibe Basin (Angola) (POSTER)

Edoardo Fiordalisi, Gustavo do Couto Pereira, Nathan Rochelle-Bates Nathan, Marta Marchegian, Cedric John, Richard Dixon, Ian Sharp, Stefan Schröder

University of Manchester, UK

- 12.45 **LUNCH, POSTERS AND BREAK OUT DISCUSSIONS**

Session 6 Marine and near surface diagenesis

Chair: Stefan Schroeder

- 13.30 Biogeochemical drivers of modern carbonate firm-ground formation: Yas lagoon, Abu Dhabi

Hazel Vallack*, Sarah E. Greene, Stephen W. Lokier, Jens Holtvoeth, Victoria A. Petryshyn, Emily N. Junkins, Bradley S. Stevenson, Fiona Whitaker

University of Bristol, UK

- 13.50 Karst Geobody Extraction through the combination of Karst Characterisation Workflow and Principal Component Analysis (PCA) in Carbonate Fields of Central Luconia Province, Sarawak

Sook Fun Lim*, D.A. Uli, A. Kumar, M.H.H. Mohammad, Z. Mohammad, Z.Z. Tuan Harith, A. Kolupaev and Y.F. Zainudain

Beicip-Franlab, Asia

- 14.10 Differential diagenesis caught in the act: lithological dependence of Hydrobia (gastropod) preservation in monospecific deposits from the Miocene Mainz Basin (SW Germany)

Theresa Nohl*, Jannick Wetterich, Axel Munnecke

Friedrich-Alexander-Universität, Germany

- 14.30 Influence of long term exposure surfaces on the compartmentalization and distribution of microporosity in shallow water carbonates

Hugues Biltault*, Philippe Leonide, François Fournier, Cathy Hollis, Matthieu Rousseau & Jérôme Hennuy

University of Manchester, UK

- 14.50 Petrophysical and Acoustic Properties of Two Middle East Reservoirs; A Comparison between Calcitic and Aragonitic Sea Deposits

Moaz Salih*, John J.G. Reijmer, Luis A. González, and Ammar El-Husseiny

KFUPM, Saudi Arabia

- 15.10 **BREAK**

Session 7 Burial diagenesis

Chair: Cathy Hollis

- 15.30 Hot and late: clumped isotopes in Middle Jurassic calcite-cemented concretions from Skye
Richmal Paxton*, Julian Andrews, Paul Dennis, Alina Marca
University of East Anglia, UK
- 15.50 Hydrobreccias, Zebra Dolomite, and Crack-Seal Textures; Implications for the Emplacement of Fault-Controlled Dolomite
Cole McCormick*, Cathy Hollis, Ernie Rutter, Hilary Corlett
University of Manchester, UK
- 16.10 The impact of hydrocarbon emplacement on cementation in carbonate reservoirs
Stephen Gundu*, Cess van der Land, Sanem Acikilan, Tannaz Pak, Shannon Flynn, Laura Galluccio
Newcastle University, UK
- 16.30 Diagenetic evolution of Jurassic platform carbonates along the NE Atlantic Margin
Nawwar Al Sinawi*, Cathy Hollis, Stefan Schröder, Jonathan Redfern
University of Manchester, UK
- 16.50 Application of Clumped Isotope Palaeothermometry to reconstruct thermal evolution of recrystallised calcite in fine-grained micrites
Sarah Robinson*, Cédric M. John, Annabel Dale, Mark Osborne
Imperial College, University of London, UK
- 17.10 SOCIAL AND GENERAL DISCUSSION**
- 18.00 CLOSE**
- DAY 3 THURSDAY 14th MAY**
- 9am – 1 pm Schlumberger Petrel GPM workshop (separate registration needed)