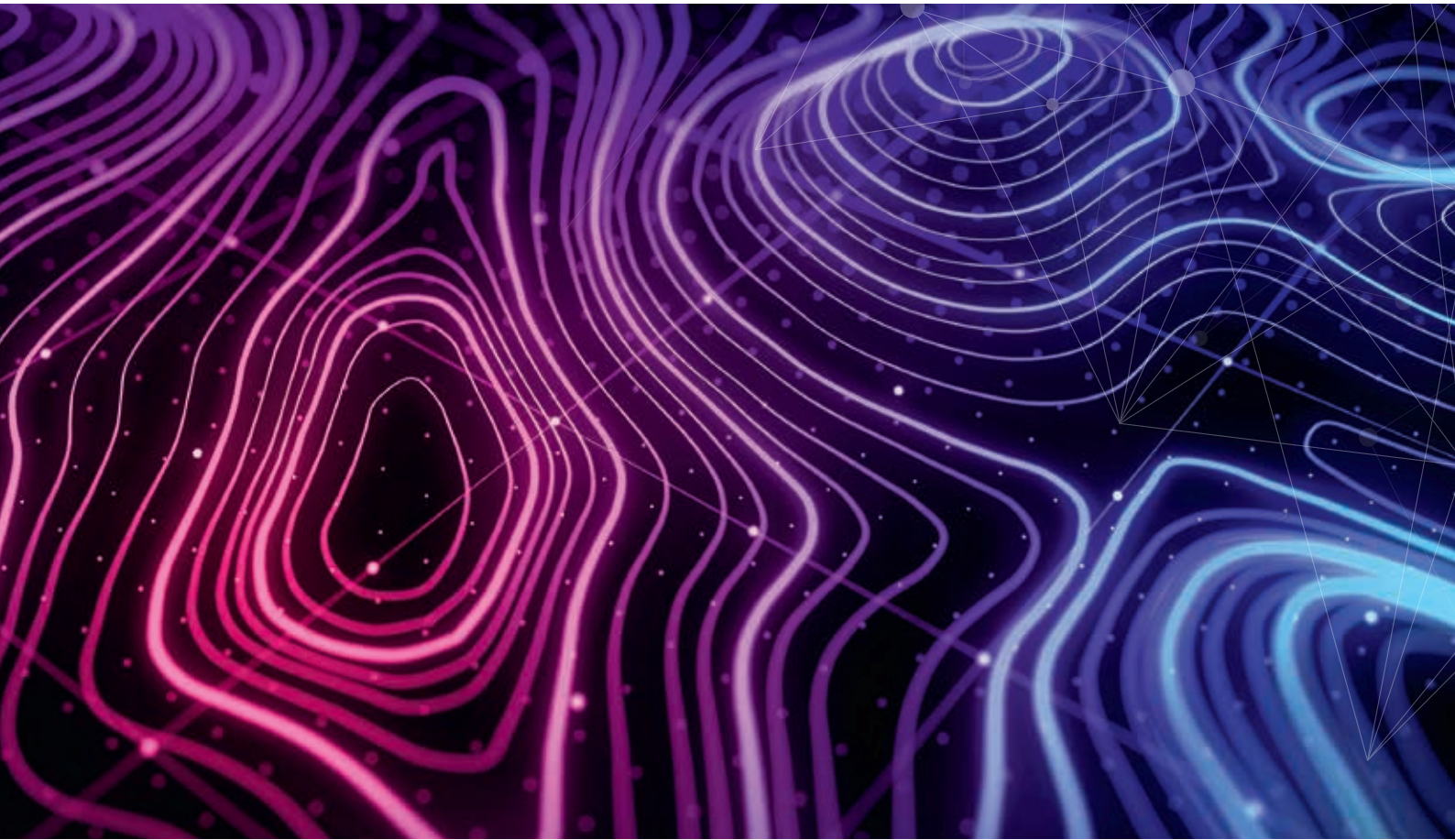


EAGE

EUROPEAN
ASSOCIATION OF
GEOSCIENTISTS &
ENGINEERS

PES  **GB**



Second EAGE/PESGB Workshop on Velocities

4-5 APRIL 2019 • LONDON, UNITED KINGDOM

- **Final Announcement & Programme**

WWW.EAGE.ORG

TECHNICAL COMMITTEE

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| Nick Benfield | Shell |
| Alex Cooke | WesternGeco |
| Ian Jones | ION |
| Ola Kristoffer Øye | Equinor |
| Ted Manning | BP |
| Tony Martin | PGS |

OVERVIEW

Despite considerable improvements in seismic data quality and imaging algorithms, velocities and earth models remain the key challenge for depth prediction. Therefore, EAGE and PESGB have joined forces to establish a series of workshops to address this and other issues involved in velocities. In this second workshop, we will focus on all aspects of reducing uncertainties; including applications in seismic imaging, velocity model building, pore pressure prediction, depth conversion and drilling.

TECHNICAL PROGRAMME

Oral Presentations | Thursday 4 April 2019

| | |
|---|---|
| 08:00 | Registrations & Welcome Coffee |
| ROOM: CHALLENGE | |
| Waveform Inversion Marine Case Studies I O. Øye (Equinor), J. Fruehn (ION) | |
| 08:30 | Introduction |
| 08:40 | Th VW 01 - Complementary Use of FWI in Earth Model Building Workflows in Complex Media - O. Zdraveva ^{1*} , M. Hegazy ¹ , Z. Chen ¹ , M. O'Briain ¹ ¹ WesternGeco |
| 09:05 | Th VW 02 - A FWI Velocity Model Building Workflow across the Senja Ridge in the Norwegian Barents Sea - S. Stokes ^{1*} , D. Manns ¹ , M. Romanenko ¹ , B. Kjølhamar ¹ , R. Myklebust ¹ , E. Henden ¹ ¹ TGS |
| 09:30 | Th VW 03 - Using Full-waveform Inversion to Build Model from Shallow to Deep: A Case Study in Black Sea - S. Chen ^{1*} , A. Davydov ¹ , S. Roy ¹ ¹ Schlumberger |
| 09:55 | Th VW 04 - Imaging Paleocene and Jurassic Prospects within the Porcupine Basin, Ireland: A Case Study - M. Hart ^{1*} , S. Bhamber ¹ , A. Hulks ¹ , S. O'Keefe ¹ , E. Cho ¹ , S. Baldock ¹ ¹ TGS |
| 10:20 | Coffee Break |
| Waveform Inversion Marine Case Studies II O. Øye (Equinor), J. Fruehn (ION) | |
| 10:50 | Th VW 05 - Hybrid Tomography and Full Waveform Inversion Velocity Model Updating for Shallow Velocity Anomalies - G. Hilburn ¹ , J. Mao ¹ , J. Sheng ¹ , S. Baldock ^{1*} , M. Hart ¹ ¹ TGS |
| 11:15 | Th VW 06 - Use of a Robust Norm in Reducing FWI Uncertainty in the Presence of Cycle Skipping - J. Ramos-Martinez ¹ , A. Valenciano ¹ , N. Chemingui ¹ , T. Martin ^{1*} ¹ PGS |
| 11:40 | Th VW 07 - JMI-FWI: Cascading workflow using Joint Migration Inversion (JMI) and Full Waveform Inversion (FWI) - G. Eisenberg-Klein ^{1*} , E.(J.) Verschuur ² , S. Qu ² , E. Schünemann ¹ ¹ TEEC, ² TU Delft |

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| 12:05 | Discussion |
| 12:30 | Lunch Break |
| Uncertainty and Automation O. Zdraveva (WesternGeco), J. Brittan (ION) | |
| 13:30 | Introduction |
| 13:40 | Th VW 08 - Bayesian Uncertainty Estimation in the Presence of Tomographic Model Error - A. Vlassopoulou ^{1*} , R. Felicio ¹ , C. Hagen ¹ , I. Jones ¹ , M. Ackers ² , S. Schjelderup ² ¹ ION, ² Spirit Energy Norge |
| 14:05 | Th VW 09 - Sample Size Automation in a Pseudo-random Model Uncertainty Workflow - T. Martin ^{1*} ¹ PGS |
| 14:30 | Th VW 10 - Seismic Waveform Inversion Using an Iterative Ensemble Kalman Smoother - M. Gineste ^{1*} , J. Eidsvik ¹ , Y. Zheng ² ¹ Norwegian University of Science & Technology, ² BP UK |
| 14:55 | Th VW 11 - Velocity Model Building from Raw Shot Gathers Using Machine Learning - O.K. Øye ^{1*} , E.K. Dahl ¹ ¹ Equinor |
| 15:20 | Coffee Break |
| Diffractions and Fractures T. Cheriyan (Total), T. Martin (PGS) | |
| 15:50 | Th VW 12 - Wavefront Tomography with Enforced Diffraction Focusing - A. Bauer ^{1*} , B. Schwarz ² , L. Diekmann ^{1,3} , D. Gajewski ¹ ¹ University of Hamburg, ² University of Oxford, ³ Utrecht University |
| 16:15 | Th VW 13 - Wavefront Tomography for Passive Seismic Data - L. Diekmann ^{1,2*} , B. Schwarz ² , A. Bauer ² , D. Gajewski ² ¹ Utrecht University, ² University of Hamburg, ³ University of Oxford |
| 16:40 | Th VW 14 - Azimuthally Anisotropic Effective Parameters from Full-azimuth Reflection Angle Gathers - R. Litvak ^{1*} , L. Korkidi ¹ , C. Ayache ¹ , R. Levy ¹ , I. Ravve ¹ , Z. Koren ¹ ¹ Emerson |
| 17:05 | Discussion |
| 17:30 | Networking Reception |
| 19:30 | End of Day 1 |

Oral Presentations | Friday 5 April 2019

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| 08:00 | Registrations & Welcome Coffee |
| ROOM: CHALLENGE | |
| Impedance and Q Inversion R. Plessix (Shell), A. Cooke (WesternGeco) | |
| 08:30 | Introduction |
| 08:40 | Fr VW 01 - Integrating FWI Models and Broadband Data for Elastic Property Generation, What is Appropriate? - T. Martin ^{1*} , C. Reiser ¹ ¹ PGS |
| 09:05 | Fr VW 02 - Using Joint Lithology-Elastic Inversion to Enhance Earth Model Building Workflows - T. Barling ^{1*} , R. Bachrach ¹ , C. Leone ¹ , S. Chen ¹ ¹ Schlumberger |
| 09:30 | Fr VW 03 - Technology Advances in Constructing High Resolution Velocity and Absorption Models over 35,000km² in the North Sea - V. Angelov ^{1*} , C. Purcell ¹ , T. Latter ¹ , A. Ratcliffe ¹ ¹ CGG |
| 09:55 | Fr VW 04 - Reducing Imaging Depth Distortions in the Central North Sea with High Resolution Velocity Model Building - J. Tatat ^{1*} , P. Hayes ¹ , G. Jones ¹ , M. Townsend ² ¹ CGG, ² Repsol Sinopec Resources UK Limited |
| 10:20 | Coffee Break |

| Elastic, Land & EM T. Martin (PGS), A. Cooke (WesternGeco) | |
|--|---|
| 10:50 | Fr VW 05 - Should We Move towards Multi-parameter Elastic Inversions? - R. Plessix ^{1*} ¹ Shell Global Solutions International BV |
| 11:15 | Fr VW 06 - Application of an Automatic and Data-driven Surface-consistent Refraction Method to Complex Geology Scenarios in Desert Environment - D. Rovetta ^{1*} , D. Colombo ² , A. Kontakis ¹ , E. Sandoval Curiel ² ¹ Delft Global Research Center, Aramco Overseas Company B.V., ² Geophysics Technology, EXPEC Advanced Research Center, Saudi Aramco |
| 11:40 | Fr VW 07 - Guide to Multi-physics Velocity Model Building: Joint Inversion Algorithms and Workflows for Real Data Applications - D. Colombo ^{2*} , D. Rovetta ¹ ¹ Delft Global Research Center, Aramco Overseas Company B.V., ² Geophysics Technology, EXPEC Advanced Research Center, Saudi Aramco |
| 12:05 | Discussion |
| 12:30 | Lunch Break |
| High Contrast Media N. Benfield (Shell), O. Øye (Equinor) | |
| 13:30 | Introduction |
| 13:40 | Fr VW 08 - A Strategy for Regional-scale FWI in the Salt Provinces Offshore Brazil - J. Fruehn ^{1*} , S. Greenwood ¹ , R. O'Driscoll ¹ , I. Jones ¹ ¹ ION |
| 14:05 | Fr VW 09 - Salt Stratification and Least Square Migration to Improve Pre-Salt Reservoir Images: Santos Basin, Brazilian Offshore Example - R. Dias ¹ , J. Fonseca ^{1*} , A. Bulcão ¹ , B. Dias ¹ , L. Teixeira ¹ , A. Maul ¹ , F. Borges ¹ ¹ Petrobras |
| 14:30 | Fr VW 10 - Reflection-refraction Tomography and Complex Salt Structure - A Case Study from Offshore North Gabon - J. Chaloner ^{1*} , P. Esestime ² , B. Cox ³ , H. Nicholls ² , L. Letki ¹ ¹ DownUnder GeoSolutions, ² Spectrum Geo, ³ Monarch Geophysical |
| 14:55 | Fr VW 11 - Imaging beneath Basalts in the Norwegian Sea Using RTM Tomography and Least Squares RTM - S. Baldock ^{1*} , T. Kim ¹ , T. Feng ¹ , Z. Guo ¹ , C. Zeng ¹ , H. Bondeson ¹ , B. Kjøllhamar ¹ , M. Hart ¹ ¹ TGS |
| 15:20 | Coffee Break |
| Model Update with Alternative Acquisition Techniques N. Benfield (Shell), S. Baldock (TGS) | |
| 15:50 | Fr VW 12 - Low-frequency Model Update Using Adjustive FWI at Clair Ridge - A. Bullock ^{1*} , S. Roy ¹ ¹ WesternGeco |
| 16:15 | Fr VW 13 - Dual-azimuth Depth Imaging of Marine Surveys over Fenja Field - O. Litvyakova ^{1*} , A. Sakharov ² , A. Welbon ² , A. Bodrov ¹ , A. Korolev ¹ , B. Esinov ² , Ø. Bø ² ¹ PetroTrace Ltd., ² Neptune Energy |
| 16:40 | Fr VW 14 - Deep Updates - Challenges and Solutions for FWI - N. Chemingui ¹ , A. Valenciano ¹ , T. Martin ^{1*} ¹ PGS |
| 17:05 | Discussion |
| 17:30 | End of Workshop |

REGISTRATION

| REGISTERED AND PAID | FROM 28 FEBRUARY - 31 MARCH | FROM 1 APRIL - ON-SITE |
|--|-----------------------------|------------------------|
| EAGE Member ¹ | € 795 | € 895 |
| PESGB Member ¹ | € 795 | € 895 |
| EAGE Green Member ^{1,5} | € 845 | € 945 |
| EAGE Platinum Member ^{1,5} | € 695 | € 695 |
| Non-member ³ | € 895 | € 995 |
| STUDENTS | | |
| EAGE Student Member ^{1,2} | € 375 | € 425 |
| PESGB Student Member ^{1,2} | € 375 | € 425 |
| EAGE Student Green Member ^{1,2,5} | € 400 | € 450 |
| Student Non-member ^{2,3,4} | € 425 | € 475 |

¹ Members please note: To qualify for the member registration fee, your membership dues for 2019 must have been paid and confirmed. The processing time for membership applications or renewals is 10 working days.

² To qualify for the reduced student registration fee:

- Students must be enrolled in a full-time study programme at a recognized university or institute
- The registration must be accompanied by a copy of a student ID card and/or official proof of enrolment.

³ As part of your Non-Member registration, you will receive a full EAGE member status for the remainder of the calendar year. This membership will be activated 2-3 weeks after the conclusion of the event.

⁴ Student non-members cannot be older than 34 years of age (when registering).

⁵ Green membership status gives you a €50 discount (€25 for students) on each EAGE event registration; starting from the Bronze status, you can benefit from an even greater reduced EAGE member registration fee. Find here for more information on the recognition programme

All fees are in Euros (€). One Euro of your total registration fee is donated to the EAGE Green Fund.

Please note: The deadlines are following the Local Time in the Netherlands. EAGE reserves the right to cancel the short course(s), workshop(s) or field trip(s) due to low participation.

All registration prices and deadlines are subject to change without notice. However, registration prices of paid registrations are guaranteed at the rate of the time of registration. Please visit the event website for the up-to-date registration information

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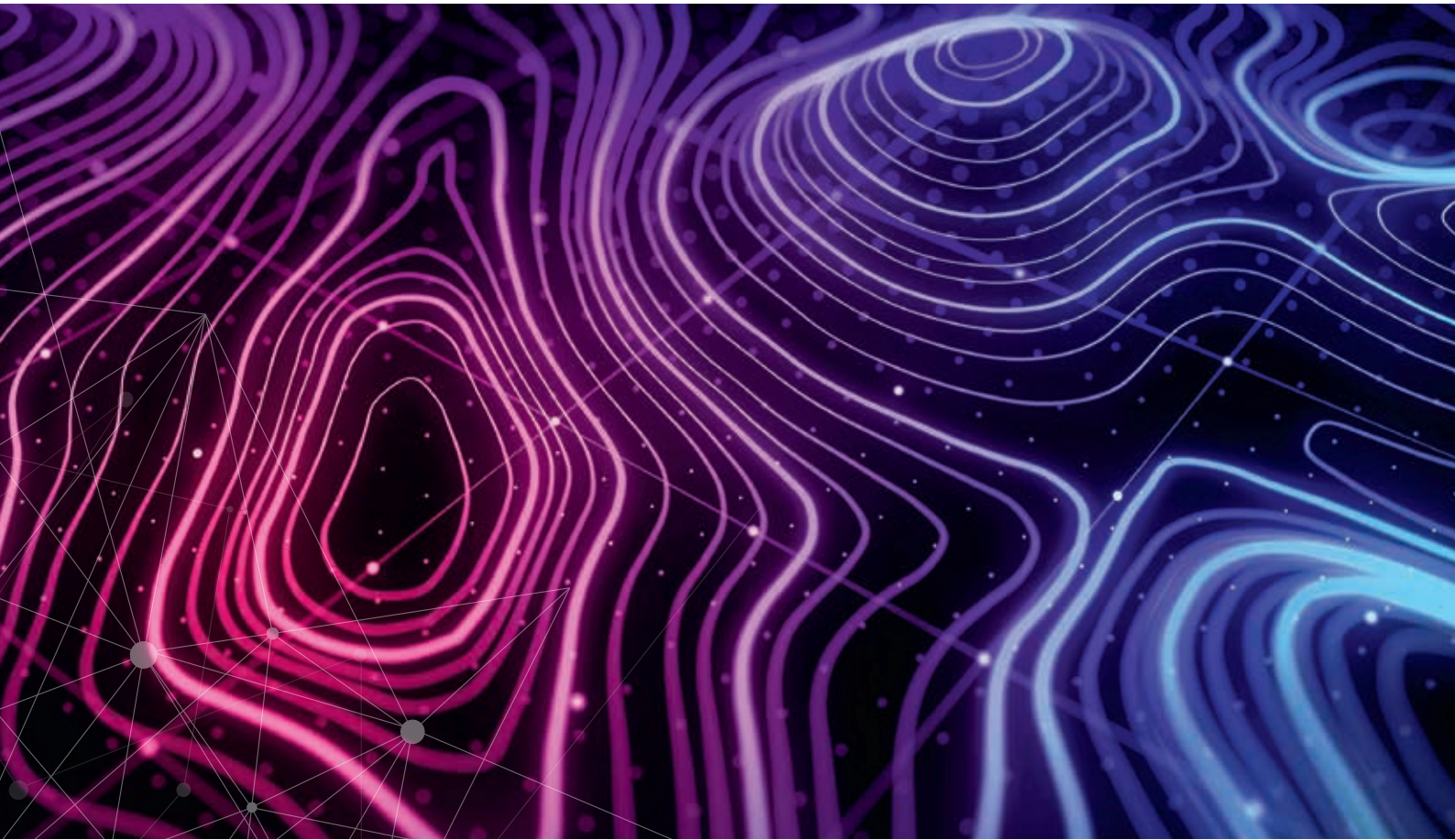
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CONTACT

The Second EAGE/PESGB Workshop on Velocities is organized by the EAGE Europe Office and PESGB. For enquiries please contact the EAGE Europe office at +31 889955055 or email eage.events@eage.org



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