

Participation of EOST staff and alumni  
at EAGE Oslo 2024

Romain BAILLET (Beicip-Franlab)

Seismic Fracture Characterization Using AVAZ and VVAZ Anisotropy for Geothermal Prospection in the Geneva basin, Switzerland

**R. Baillet** and J. Caudroit

Perrine BARON (TotalEnergies)

Use of Some AI/ML Tools on Generative System Elements to Unlock Exploration Potential in Mature Areas  
N. Nosjean, J. Fiore, E. Caroli, **P. Baron**, C. Killisly and L. Turon

Patrick BAUD (Ites)

Influence of Sedimentary Bedding and Joints on the Mechanical Strength of the Buntsandstein

**P. Baud**, A. Kushnir, **M. Heap**, **T. Reuschlé** and **J. Schmittbuhl**

Stephen BELLER (Umr Geoazur)

A Frequency-Domain Spectral-Element Solver for Fluid-Solid Media

**S. Beller** and S. Operto

Pushing the Limits of 3D Frequency-Domain FWI with the 2015/2016 OBN Gorgon Dataset

S. Operto, P. Amestoy, **S. Beller**, A. Buttari, L. Combe, F. Faucher, P. Jolivet, J. L'Excellent, T. Mary and S. Migeon

Philippe BERTHET (TotalEnergies)

Multi-Fidelity Data Assimilation Applied to a Realistic Reservoir Model

K. Fossum, T. Mannseth and **P. Berthet**

Alexandre BERTRAND (Vår Energi)

Net Pay Estimation Using Quantitative Interpretation and Machine Learning

B. Chalmers, R. Kifle, M. Gelhaus, **S. Vitoux** and **A. Bertrand**

Acquisition of a Complex OBN Survey in the Balder-Ringhorne Area of the North Sea

M. Trulsvik, I. Burnie and **A. Bertrand**

Assisting 3D/4D Seismic Interpretation in Remobilised Sands in the Balder Area Using 3D PSF Seismic Modelling

D. Holden, **A. Bertrand**, **I. Lecomte**, V. Patacz and A. Hurst

Quantifying Oil-replacing -Water 4D Signal in Steep Injectites in the Balder Area

**A. Bertrand** and V. Patacz

FWI-Driven Survey Design: a Gas-Chimney Case-Study in the Barents Sea

J. Panizzardi, S. Baudo, **A. Bertrand** and J. Rokke

Thomas BIANCHI (S3 Smart Seismic Solutions)

Onshore Broadband Seismic Exploration for Geothermal Targets Using a Multiscale Shooting Grid

C. Strobbia, **A. Chapart**, D. Sweeney, **P. Roche**, D. Soubeyrand, **J. Vidal**, S. Foss, R. Bakke and **T. Bianchi**

Thomas BODIN (ENS Lyon)

Transdimensional Inversion of Post-Stack Seismic Data with a Two-Dimensional Dipping Layer

Parameterization: a Proof of Concept

J. Herrero, G. Caumon, **T. Bodin** and **J. Giraud**

Joffrey BRUNELLIÈRE (TotalEnergies)

OBN Acquisition Cost Optimization and Its Impact on Reservoir Characterization: a Deep Water Case Study

**B. Pagliccia**, C. Le Magoarou, **J. Brunellière** and A. Lafram

Sébastien BUIZARD (CGG)

Johan Sverdrup Permanent Reservoir Monitoring – Quick and Robust Delivery and Observations

E. Sadikhov, M.N. Ab Ghani, **C. Courtial**, T. Målbakken, I.K. Osmundsen, O. Lyse, **S. Buizard** and S. Farrington

Maud CAVALCA (SLB)

Pre-Stack LSRTM - Illuminating the Subsurface for Advanced Reservoir Understanding - Campos Basin Case Study

M. Shadrina, **M. Cavalca**, E. Saragoussi, J. Monteiro, J. Mathewson, B. Pereira Dias, E. Feller Sperandio, M. Rapini Braga, M. De Souza Bezerra and T. Nobre Costa

4D Least-Squares Migration for Enhanced Time-Lapse Imaging Between Repeatable and Non-Repeatable Ocean-Bottom Configurations

F. Twynam, M. Shadrina, M. Hooke, A. Ramsden, **M. Cavalca**, P.E. Dhelie, V. Danielsen and A. Kvilhaug

Alexandre CHAPART (Realtimeseismic)

Onshore Broadband Seismic Exploration for Geothermal Targets Using a Multiscale Shooting Grid

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Nicolas CHAZALNOEL (CGG)

Unusual Negative Seismic Anisotropy: an Example from Offshore Suriname Shallow Waters

Z. Sun, J. Yang, B. Hu, **N. Chazalnoel**, V. Cole, J. Jeremiah, K. Zhang, J. Deeds and D. Moy

Olivia COLLET (Curtin University)

A Deep Learning Approach for Passive Seismic Sources Locating and Subsurface Property Characterisation

E. Al-Hemyari, **O. Collet**, K. Tertyshnikov and R. Pevzner

Effect of Injected CO<sub>2</sub> on Downhole DAS Amplitudes of Rayleigh Waves Generated by Ocean Storms

R. Pevzner, **O. Collet**, K. Tertyshnikov, S. Glubokovskikh, F. Chen and B. Gurevich

Time-Lapse VSP DAS Seismic Monitoring of a Shallow CO<sub>2</sub> Controlled-Release Experiment

V. Shulakova, K. Tertyshnikov, R. Isaenkov, B. Gurevich, **O. Collet** and R. Pevzner

Non-Linear Effects on Vibroseis Signals Recorded by Downhole DAS

V. Shulakova, B. Gurevich, K. Tertyshnikov, **O. Collet**, R. Isaenkov, P. Shashkin and R. Pevzner

Distributed Acoustic Sensing for Underwater Passive Acoustic Monitoring: Preliminary Insights from a North-West Australia Case Study

E. Sidenko, C. Erbe, H.A. Debens, D. McCorry, D. Hume, R.D. McCauley, A.N. Gavrilov, **O. Collet**, B. Gurevich, P. Shashkin, K. Tertyshnikov and R. Pevzner

Removing DAS Hardware Noise: a Comparison Between Traditional and Weakly Supervised Machine Learning Approaches

**O. Collet**, X. Gu, K. Tertyshnikov and R. Pevzner

Feasibility Study of Denoising Instrumental Noise of Raw SOV-DAS Data with Deep Learning

B. Yoon, **O. Collet**, R. Isaenkov, P. Shashkin, S. Cheong, R. Pevzner and Y. Park

Marine COLLIGNON (Geofluid)

Basin-Scale Modeling of the Baia Mare geothermal and Ore-Forming System

A. Minakov, Ø. Klemetsdal, **M. Collignon**, C. Gaina, I. Panea and M. Neukirch

Jean Philippe COULON (CGG)

Angle-Restricted FWI for Shallow Reservoir Characterization

I. Espin, L. Michou, N. Salaun, D. Donno, Ø. Wergeland, K. Gotliebsen, D. Carotti, J. Mispel, B. Deschizeaux, **J. Coulon** and S. Høgden

Joint Seismic VVAz-AVAz Inversion: A Case Study from Offshore Abu Dhabi

L. Michou, O. Kirstetter, **D. Laurencin**, F. Ali AlJaberi, V. Souvannavong, G. Cambois, B. Deschizeaux, A. AlKaabi, **J. Coulon**, M. Alderei, T. Le Canu, S. Yves Anthoine, B. Roure, H. Kheidri, M. Waqas and S. Ahmed

Christophe COURTIAL (Equinor)

Johan Sverdrup Permanent Reservoir Monitoring – Value of 4D Information for a Young Field

**C. Courtial**, I. Kloster Osmundsen, T. Målbakken, E. Sadikhov, J. Sørbel, G. McQueen and O. Lyse

Johan Sverdrup Permanent Reservoir Monitoring – Quick and Robust Delivery and Observations

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Laure DUBOEUF (Storengy)

Underground Gas Storage Monitoring with Seismic Ambient Noise Interferometry: Attempts & Perspectives

T. Kremer, A. Kasantsev, **L. Duboeuf**, J. Ars, T. Gaubert-Bastide and A. Grauls

Jean-Rémi DUJARDIN (NGI)

On the Benefits of Shear Wave Data for Offshore Wind Developments

**J.-R. Dujardin (NGI)**

Cone Penetration Testing Prediction Using Seismo-Acoustic Data

R.T. Klinkvort, **G. Sauvin**, **J. Dujardin**, **L. Griffiths**, M.E. Vardy and M. Vanneste

Pascal EDME (ETH Zurich)

Divergence-Based Local Near-Surface Characterization with Distributed-Acoustic-Sensing

**P. Edme**, T. Kiers, P. Paitz and J. Robertsson

?? Simon FILLACIER (Petoro)

Increased Value in Reservoir Management Decision under Uncertainty Using Ensemble-based Modelling and Analytics. The Smørbukk Story

K. Monastirev, **S. Fillacier**, M.A. Javed and J. Saetrom

Guillaume FRIESS (CGG)

Overall Source Effectiveness: Getting the Most Out of Land Source Assets

N. Tellier, G. Ollivrin and **G. Friess**

Kevin GESTIN (Spotlight Earth)

Predictive Maintenance for CCS Subsurface Surveillance Using Focused Seismic Monitoring

H. Al Khatib, **K. Gestin**, T. Roth, O. Burachok and E. Morgan

Jérémie GIRAUD (Georessources Ring team)

Transdimensional Inversion of Post-Stack Seismic Data with a Two-Dimensional Dipping Layer

Parameterization: a Proof of Concept

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Luke GRIFFITHS (Norwegian geotechnical institute NGI)

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Antoine GUITTON (TotalEnergies)

Survey design of receiver carpets based on compressive sensing principles: lessons learned from the Metis© project

**A. Guitton (TotalEnergies)**

Michael HEAP (Eost)

Influence of Sedimentary Bedding and Joints on the Mechanical Strength of the Buntsandstein

**P. Baud**, A. Kushnir, **M. Heap**, **T. Reuschlé** and **J. Schmittbuhl**

Virginie HARCOUET MENO (Vito)

Simulation of Closed-Loop Geothermal Systems

M. Wangen, V. Leontidis, E. Hernandez Acevedo, **V. Harcouët-Menou** and P. Ungar

Arnaud HUCK (dGB Earth Sciences b.v.)

Machine Learning-based seismic inversion methods

**Arnaud Huck (dGB Earth Sciences)**

Seismic Reservoir Characterization Using a Trace-matching Approach in the Blackfoot 3D Seismic Survey

T.J. Moser, K. Rimala, H. Refayee and **A. Huck**

Suzon JAMMES (M&u sas)

Natural Hydrogen Prospect Assessment – a Case from the French Pyrénées

M. Neumaier, **E. Masini, S. Jammes**, J. Gomez-Romeu and M. Ducoux

Mathieu LANGE (PGS)

Elevating 3D Ultra High Resolution Processing and Imaging for Wind farm Site Characterisation

L. Limonta, V. Butterworth, B. Caselitz, **M. Lange** and J. Oukili

Deghosting of UHR Seismic Data Via Dynamic Ghost Tracking

M. Bekara, C. Davison, **M. Lange** and L. Limonta

Nadège LANGET (Norsar)

Multigeophysical Inversion and Play-Fairway Analysis in the Hengill Volcanic System, Iceland

K. Hokstad, J.I. Tollefsrud, Á. Benediktsdóttir, V. Hjörleifsdóttir, A. Obermann, B. Goertz-Allmann and

**N. Langet**

Velocity Model Analysis and Relative Event Locations Using DAS: a Case Study from Iceland

A. Baird, T. Kaschwich, **N. Langet**, B. Goertz-Allmann and A. Obermann

Improving the Detection Threshold of Borehole DAS for Seismic Monitoring of CCS Fields

A. Baird, J. Vernier, B. Goertz-Allmann, **N. Langet, E. Rebel**, S. Wienecke and S. Oates

Robust and Cost-Effective Monitoring of Induced Seismicity in CCS

B. Goertz-Allmann, **N. Langet**, K. Iranpour, A. Baird, D. Kuhn, J. Vernier, S. Oates and V. Oye

Delphine LAURENCIN (CGG)

Joint Seismic VVAz-AVAz Inversion: A Case Study from Offshore Abu Dhabi

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Didier LECERF (PGS)

Drop & Pop tri-component ArchiNode

**Didier Lecerf (PGS)**

Opportunistic 4D Time-Lapse Using a Regional Non-Repeated 4D Monitor, an Ærflug Case Study

R. Milne, A. Stav, S. Marinets, **D. Lecerf**, S. De Pierrepont, V. Zhelanov, A. Tantsereva and J. Oukili

Isabelle LECOMTE (University of Bergen, Norway)

Assisting 3D/4D Seismic Interpretation in Remobilised Sands in the Balder Area Using 3D PSF Seismic Modelling

D. Holden, **A. Bertrand, I. Lecomte**, V. Patacz and A. Hurst

Philippe LEROY (BRGM)

Petrophysical Characterization of Fractured Limestone from Beauce Aquifer Vadose Zone (O-ZNS Observatory, France)

Y. Abdoul Nasser, C. Mallet, J. Deparis, S. Gaboreau, **P. Leroy**, D. Jougnot and M. Azaroual

Frichnel Wilma MAMFOUMBI OZOU (Geoazur)

Assessing Wavefield Reconstruction Inversion with 2015/2016 OBN Gorgon Data

**F.W. Mamfoumbi Ozoumet**, H. Aghamiry and S. Operto

Jean-Luc MARI (Spotlight, Sorbonne université)

Latest ML developments: Geophysics Geostatistics

**Jean-Luc Mari (Geophysicist)**

Why Geostatistics can be Useful in Seismic Processing and Modelling?

**J. Mari** and A. Shtuka

Automatic CO2 Detection based on a Modified NRMS Coefficient: Example of Greensand

H. Al Khatib and **J. Mari**

Contribution of 2-Component VSP Measurements to the Characterization of a Geothermal Site

**J. Mari**, P. Münzberger, R. Colbach, **L. Peignard** and H. Al Khatib

Emmanuel MASINI (M&U)

Prospect assessment for H2 and He exploration

**Emmanuel Masini (M&U)** & Benoit Hauville He (458energy)

Natural Hydrogen Prospect Assessment – a Case from the French Pyrenees

M. Neumaier, **E. Masini**, **S. Jammes**, J. Gomez-Romeu and M. Ducoux

Coralie MATHIEU (Equinor)

Integrating 4D Seismic to Add Value and Improve Predictability in a Low NTG Fluvial System, Snorre

C. Hawley, E. Vormestrand Andreassen and **C. Mathieu**

Gwenola MICHAUD (Cognite - GM Consulting)

Feasibility Study of Structural Health Monitoring for Pressurized Spherical Tank in Liquefied Petroleum Gas Storage

A. Brovelli, F. Ugur, S. Ozyurt, S. Fanizzi, **G. Michaud** and A. Tazkir

Darney Destin NZIENGUI BÂ (Isterre - Febus Optics), Camille Jestin (Febus Optics)

Combination of DAS Solution and Passive Seismic Imaging Techniques for Water Basin Time-Lapse Tomography

**D. Nziengui-Bâ**, **C. Jestin**, O. Coutant and V. Lanticq

?? Alba ORDONEZ (Norsk Regnesentral)

Towards a Foundation Model for Seismic Interpretation

A. Ordonez, D. Wade, C. Ravaut and A.U. Waldeland

Bruno PAGLICCIA (TotalEnergies)

OBN Acquisition Cost Optimization and Its Impact on Reservoir Characterization: a Deep Water Case Study

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Ludovic PEIGNARD (Earthquick)

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Thomas PIOLLE (Beicip Franlab)

Groundwater Hydrothermal Circulation Modeling in Crustal Fault Zones: Geothermal Systems Uncertainty and Risk Assessment

G. Pérez-Drago, S. Arsenikos and **T. Piolle**

Didier RAPPIN (TotalEnergies)

4D Seismic Monitoring Feasibility Applied to a Giant Onshore Carbonate Reservoir

M. Ben Marouf, **D. Rappin**, A. Kamp and K. Tarek

Rock Physic Parameters Impacting CO2 Storage: Geophysical Time-Lapse Monitoring Capabilities

**D. Rappin**, A. Price, P. Basini, N. Luzinski and L. Avauillée

Estelle REBEL (TotalEnergies)

Improving the Detection Threshold of Borehole DAS for Seismic Monitoring of CCS Fields

A. Baird, J. Vernier, B. Goertz-Allmann, **N. Langet**, **E. Rebel**, S. Wienecke and S. Oates

Mathieu REINIER (CGG)

Near-Surface Characterization by Elastic Full-Waveform Inversion of Surface Waves

A. Sedova, O. Leblanc, **M. Reinier**, D. Donno, G. Lambaré and D. Carotti

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Influence of Sedimentary Bedding and Joints on the Mechanical Strength of the Buntsandstein

**P. Baud**, A. Kushnir, **M. Heap**, **T. Reuschlé** and **J. Schmittbuhl**

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Streamer-Tail Optimization for FWI

T. Tshering, O. Orji, M. Widmaier, **C. Roalkvam** and M. Bell

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Navigating the Future: Insights from Recent CCS Baseline and Development 3D Streamer Seismic Surveys

M. Widmaier, **C. Roalkvam**, O. Orji, A. Goertz and A. Tantsereva

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Aline ROBIN (TotalEnergies)

A generalization of a source motion correction

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Onshore Broadband Seismic Exploration for Geothermal Targets Using a Multiscale Shooting Grid

C. Strobbia, **A. Chapart**, D. Sweeney, **P. Roche**, D. Soubeyrand, **J. Vidal**, S. Foss, R. Bakke and **T. Bianchi**

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Serge SAMBOLIAN (Université de Strasbourg)

Multi-Parameter FWI of Broadband Data: Beyond High Resolution Images

L. Metivier, R. Brossier, **S. Sambolian** and A. Tarayoun

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Cone Penetration Testing Prediction Using Seismo-Acoustic Data

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Alban SOUCHE (Bergverk as)

Influence of Magmatic Intrusions on Hydrocarbon Generation and Migration: Numerical Simulations and Geological Regimes

D.W. Schmid, K. Iyer, **A. Souche**, B. Manton and S. Planke

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Screening for CCS in Denmark Using Forward Modelling: from Facies Characterization to Injection and Plume Evolution

S. Bou Daher, **A. Thebault**, F.W.H. Smit and A. Mathiesen

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Consistent Porosity Prediction Using a Probabilistic Litho-Facies Inversion

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Matthieu VINCHON (Northern Lights jv (TotalEnergies))  
Northern Lights CCS Monitoring: a Plan in Continuous Evolution  
C. Acuna, **M. Vinchon**, A. Furre, I. Torsnes and N. Thomson  
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Avertissement: des erreurs et oublis sont possibles

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