



2021 ANNUAL MEETING

Forum for Exploration and Development Geophysics Education and Research (EDGER)

AGENDA

Wednesday, March 24th, 2021 (Online Annual Meeting)

8:30 AM **Zoom meeting opens**

9:00–9:40 AM Welcome addresses (Mrinal Sen, Nicola Tisato, and Kyle Spikes)

Session I: Numerical methods: Wavefield simulations, inversion methods, and machine learning

09:40–10:05 AM Operator approximation for fast wavefield computation – Dmitri Voytan

10:05–10:30 AM Optimized meshfree seismic modeling for anisotropic media – Xin Liu

10:30–10:55 AM Full waveform inversion using adaptive quasi-Newton method – Ricardo Braganca

10:55–11:10 AM **Break**

11:10–11:35 AM A fast image domain least squares migration method with local data target approach – Ram Tuvi (Invited speaker)

11:35–12:00 PM Probabilistic joint-inversion and uncertainty analysis – Pankaj Mishra (Invited speaker)

Session II: New students

12:00 PM **Zoom meeting closes**

12:00–01:00 PM **Lunch**

12:45 PM **Zoom meeting reopens**

01:00–01:05 PM Cameron Defabry

01:05–01:10 PM Osama Alsanery

Session III: Rock physics and reservoir characterization

01:10–01:35 PM Facies constrained transdimensional AVA inversion – Arnab Dhara

01:35–02:00 PM Quantifying uncertainty in AVA inversion using deep learning – Son Phan

02:00–02:15 PM Lithofacies segmentation from core images using Bayesian neural networks – Wei Xie

02:15–02:40 PM Unconventional reservoir characterization by seismic inversion and machine learning of the Bakken Formation – Jackson Tomski

02:40–02:50 PM **Break**

02:50–03:15 PM Computed tomography parameters for digital rock physics models– Eric Goldfarb

03:15–03:40 PM Fracture detection and property estimation in microCT images – Omar Alamoudi

03:40–04:05 PM Low-frequency elastic properties of a polymineralic carbonate: Laboratory measurement and digital rock physics – Ken Ikeda

04:05–04:15 PM Wrap up – Mrinal Sen, Nicola Tisato, and Kyle Spikes

04:15 PM Adjourn

04:15 PM **Zoom meeting closes**