

SEG | DGS Workshop: Challenges & New Advances in Velocity Model Building

9–11 March 2021 | Virtual Workshop





Image source – Cui et al, <https://doi.org/10.1190/tle34121474.1>

REGISTRATION Early Bird Deadline!

Register by
16 February 2021
and save!

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While it is challenging to translate all aspects of the physical workshop within a virtual environment, we are committed to providing our attendees a unique platform with an immersive workshop experience to maintain the same depth in knowledge-sharing, engagement and networking, in order to guarantee a comprehensive online experience. Like the physical workshop, the virtual workshop will follow the technical program components such as opening & keynote speech, presentations from industry experts, and moderated discussions. The platform offers an optimized and powerful webpage experience – from the comfort of your home or office:



Stage

Presentations
and discussions



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One-on-one
meetings



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and Q&A



Links

Recorded sessions
via SEG on-demand

WORKSHOP DESCRIPTION

Velocity model building is the most important and critical element in seismic data imaging. The demands of exploring more complex new frontiers in particular will not be fulfilled without accurate velocity models. Understanding the fundamentals, and then challenging the approximations of seismic velocity estimations, limitations and pitfalls in practical applications, are the main keys of building the most accurate integrated velocity model. This approach, which exploits the relationship between the refraction, reflection, surface waves and non-seismic data, considers the wave propagation which is based on strong simplified assumptions. Accurate velocities are the main challenge for improving seismic data and depth prediction. For example, near-surface irregularities require accurate velocity models for proper imaging of the deep subsurface. Moreover, high-resolution velocities are also desirable for wave-equation based migration algorithms required for subsalt imaging.

The workshop is designed to provide insights for geoscientists to better understand the principles and limitations of both current and emerging technologies involved in velocity model building. As a result, participants should ideally understand how contemporary velocity estimation methods work, and what approximations are involved in obtaining computationally tractable solutions.

TECHNICAL TOPICS

- Role of acquisition
- Non-seismic methods
- Borehole seismic
- Near surface
- Anisotropic velocities
- Wave equation tomography
- Big data and machine learning
- Waveform inversion
- Case Studies

WHO SHOULD ATTEND

This workshop will be of significant interest to geoscientists, engineers, research institutes & academia

FOR MORE INFORMATION

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