

SEG WORKSHOP

Full-waveform Inversion:
Filling the Gaps



30 March – 1 April 2015
Abu Dhabi, UAE

2015 SEG Middle East Workshop

30 March–1 April 2015
Jumeirah at Etihad Tower
Abu Dhabi, UAE

Full-waveform Inversion: Filling the Gaps

Call for Contributions

Abstract submission deadline: 17 January 2015

Advance registration deadline: 2 March 2015

The objective of this workshop is to discuss the challenges, difficulties, and solutions (either potential or already tested) in full-waveform inversion (FWI) for applications resolving the onshore near surface, shallow water, unconventional resources, and offshore subsalt.

FWI has emerged as a process that optimally meets our resolution and imaging objectives in exploration and production seismic. It has the potential to include a comprehensive computational simulation of the field seismic experiment, in which synthetic data from an inverted model are matched to the observed data.

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FWI faces many challenges and issues, some of which involve the following:

- acquisition
- preparing the data
- modeling
- implementation
- uncertainty and quality control

The workshop invites papers addressing the challenges, difficulties, and solutions in full-waveform inversion (FWI) for applications resolving the onshore near surface, shallow water, unconventional resources, and offshore subsalt:

- FWI-related acquisition requirements
- the classical full-waveform or direct inversion
- waveform inversion assisted by an objective function defined in the image space
- finite-frequency traveltimes tomography and smooth kernels
- acoustic, elastic, attenuation, anisotropic inversions, and the role of density
- regularization and uncertainty issues
- diving waves versus reflection events
- HPC and numerical algorithms optimization
- the role of multiples (good or bad?)
- reservoir characterization and time-lapse/4D applications
- integration of nonseismic information
- business benefits of FWI

MEETING SCHEDULE:

Sunday, 29 March

Registration, Icebreaker

Monday, 30 March

Registration, morning and afternoon sessions

Tuesday, 31 March

Morning and afternoon sessions

Gala Dinner at Fairmont Bab Al Bahr Hotel

Wednesday, 1 April

Morning and afternoon sessions

MEETING VENUE: Jumeirah at Etihad Tower is the venue for the meetings, group lunches, and guest accommodations. We will host the Gala Dinner at Fairmont Bab Al Bahr Hotel.

CALL FOR PAPERS AND SUBMISSION: Abstracts should include sufficient detail for the committee to judge the quality of the paper. Abstracts should be a minimum of one page, text plus one figure (optional), with a maximum of two pages. Abstracts should be on 8.5 x 11 inch paper, with text in Roman font, and include both text

and figures. Title should be 1 or 2 lines, at the top of the page, in bold font, and 12-point type. Authors should be listed in Roman italic font, size 10 point and located just below the title. All text must stay 1 inch clear of the margins of the page. Submissions should be in Adobe Acrobat PDF format. Please e-mail to okocak@seg.org or fax to +971 4 372 4204 to the attention of Ozlem Kocak.

ACCEPTANCE: An oral presentation is not a requirement for attendance, but direct participation in the discussions is a requirement for all attendees.

SPONSORSHIP: This is a great opportunity to get your company name and message in front of industry professionals as well as a great way to support the industry. Contact okocak@seg.org for information.

ORAL SESSION FORMAT: Oral sessions consist of 20-minute presentations including questions and answers. A 45-minute discussion time will be planned at the end of each half-day session.

POSTERS: The fourth session (the first two days) is a poster session with 5-minute presentations by each poster presenter. We then head to the posters for an hour and meet again for discussions.

ORGANIZING COMMITTEE

Dr. Wafik Beydoun (Co-chair), ADNOC; **Dr. Tariq Al Khalifah** (Co-chair), KAUST; **Stephane Operto**, CNRS Geosciences Azur; **Thierry Tonellot**, Saudi Aramco; **Christoph Koeninger**, Schlumberger; **Aldo Vesnaver**, Petroleum Institute; **Anatoly Baumstein**, ExxonMobil; **Abdulla Al Kobaisi**, ADNOC; **Mamoru Takanashi**, JOGMEC; **Andrew Benders**, BP; **Bertrand Duquet**, Total; **René-Édouard Plessix**, Shell.

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Mr. Ms. Dr.

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E-mail _____

Select your preference: Oral Presenter No presentation, discussion contribution only

Note: The mechanical recording of any portion of the 2015 SEG Workshop in any form (photographic, electronic, etc.) is strictly prohibited. Printed reference to the Workshop presentations or discussions is not permitted without the consent of the parties involved. All participants are requested to omit public reference to the Workshop proceedings in any published work or oral presentation. Only registrants are permitted to attend Workshop sessions. Each participant agrees to these regulations when application is accepted, as indicated by his or her signature on this form.

Signature _____

Date _____

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