

# CALL FOR ABSTRACTS

Deadline: 4 July 2019

## 2019 SEG 3rd International Workshop on Mathematical Geophysics: Traditional vs. Learning

5–7 November 2019 | Beijing, China

### CALL FOR ABSTRACTS:

OPENS 4 MARCH 2019  
CLOSES 4 JULY 2019  
(11:59 PM US Central Daylight Time)

Please email the abstract and  
the call for abstract form to  
[china@seg.org](mailto:china@seg.org)

### REGISTRATION:

OPENS 5 JULY 2019  
EARLY BIRD REGISTRATION  
CLOSES 5 OCT  
FULL REGISTRATION FEE  
REQUIRED BEGINNING 6 OCT

### ORGANIZER:



SOCIETY OF EXPLORATION  
GEOPHYSICISTS

### SUPPORTER:



北京大学  
PEKING UNIVERSITY

### WORKSHOP DESCRIPTION

Following the successful first and second International Workshops on Mathematical Geophysics in 2015 and 2017, this 3rd edition will take place 5–7 November 2019 in Beijing, China. The central theme is traditional vs. learning methods to solve geophysical problems associated with data processing, inversion, and interpretation.

Over the last few decades, mathematical techniques inspired in the fields of harmonic analysis, dimensionality reduction, and dictionary learning led to significant advancements in seismic data processing and imaging. More recently we witnessed considerable progress in machine learning and its successful applications to different fields. This workshop will serve as a forum to discuss how traditional methods and machine learning techniques can help solve geophysical problems in areas of geophysical data processing, inversion, and interpretation.

The workshop includes discussions on algorithms and studies that address both theoretical and operational challenges in geophysical exploration. We encourage experts from the fields of geophysics, computer sciences, and applied mathematics to participate in this event to exchange ideas and develop new visions together.

### ABSTRACT SUBJECTS

We invite abstracts for the following topics – oral and posters:

- Machine learning
- Seismic data acquisition
- Seismic data processing
- Modeling, migration, and inversion
- Multi-component seismic data
- Seismic interpretation
- Reservoir characterization
- Fracturing and seismic monitoring
- Mathematical algorithms and applications in geophysics
- Other applications of artificial intelligence in geophysics
- Near-surface geophysics (high-speed rail seismology)

### ABSTRACT FORMAT

Abstracts should be in English and sufficiently explanatory for the committee to evaluate. Abstracts should be 1–4 pages. Abstracts should be on A4 paper size, have text in 9 point Roman font, and include both text and figures. Title should be one or two-line, at the top of the page, in bold font, and size 11 points. Authors should be listed in Roman italic font, size 10 points, and located just below the title. All text should must stay one inch clear of the margins of the page. Submissions should be in Microsoft Word or Adobe Acrobat PDF format.

## TECHNICAL CO-CHAIRS

(NAMED IN ALPHABET ORDER OF LAST NAMES)

### Sergey Fomel

University of Texas at Austin, USA

### Jianwei Ma

Harbin Institute of Technology, China

### Mauricio Sacchi

University of Alberta, Canada

### Ru-Shan Wu

University of California,  
Santa Cruz, USA

## TECHNICAL COMMITTEE MEMBER

### Youming Li

Institute of Geology and Geophysics, Chinese Academy of Sciences

## ORGANIZING CO-CHAIRS

(NAMED IN ALPHABET ORDER OF LAST NAMES)

### Jieyuan Ning

Peking University

### Lizhi Xiao

China University of Petroleum (Beijing)

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## PRINT IN BLACK INK OR TYPE

Dr.    Mr.    Ms.

SEG ID# (if currently a member) \_\_\_\_\_

Name \_\_\_\_\_ Job Title: \_\_\_\_\_

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Country \_\_\_\_\_

Address listed:    Business    Home

Business Phone \_\_\_\_\_ Email: \_\_\_\_\_

Are you a student?    Yes    No

Subject \_\_\_\_\_ Presentation Type:    Oral    Poster    Both

**NOTE:** The mechanical recording of any portion of the 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: \_\_\_\_\_

Please email abstract and call for abstracts form by **4 JULY 2019** to [china@seg.org](mailto:china@seg.org).

**QUESTIONS?** Call +86 10 5820.5048