

# The 24th Formation Evaluation Symposium of Japan

**Special Session: Complex Reservoirs**

## PROGRAM

**JOGMEC-TRC, Chiba  
October 11 - 12, 2018**



Sponsored by Japan Formation Evaluation Society – A Chapter of SPWLA  
Cosponsored by Technology & Research Center, Japan Oil, Gas and Metals  
National Corporation  
Supported by Japanese Association for Petroleum Technology  
Society of Exploration Geophysicist of Japan  
Geothermal Research Society of Japan  
Society of Petroleum Engineers, Japan Section

<https://jfes-spwla.org/symposium/24thSymp/jfes2018.html>

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# Program

## Thursday, October 11

<i>Registration</i>	Entrance Hall
<i>Slide Center</i>	Entrance Hall
Opening	Lecture Hall
Keynote	Lecture Hall
<i>Coffee Break</i>	Lobby
Invited Talks	Lecture Hall
<i>Lunch</i>	Cafeteria
Invited Talk	Lecture Hall
Special Session: Complex Reservoirs I	Lecture Hall
<i>Coffee Break</i>	Lobby
Special Session: Complex Reservoirs II	Lecture Hall
<i>Coffee Break</i>	Lobby
Special Session: Complex Reservoirs III	Lecture Hall
General meeting	Lecture Hall
<i>Icebreaker</i>	Cafeteria

## Friday, October 12

<i>Slide Center</i>	Entrance Hall
Reservoir Characterization I	Lecture Hall
<i>Coffee Break</i>	Lobby
Reservoir Characterization II	Lecture Hall
<i>Coffee Break</i>	Lobby
Formation Evaluation	Lecture Hall
<i>Coffee Break</i>	Lobby
Geophysics	Lecture Hall
<i>Closing</i>	Lecture Hall

# Technical Session: Thursday, October 11

## Opening

**9:20**      **Safety Notes**

*Chairperson: Tetsuya Yamamoto (JAPEX)*

**9:25**      **Opening Address:** Professor Masanori Kurihara (President of JFES; Waseda University)

## Keynote

*Chairperson: Hideo Komatsu (INPEX)*

**9:35**      **Keynote Address:** Mr. Adam Haecker (Regional Director of SPWLA, North America; Continental Resources)

## Technical Announcement

*Chairperson: Tetsuya Yamamoto (JAPEX)*

**10:15**      **Invitation to Technical Booths**

**10:30-10:45**      **Coffee Break**

## Invited Talk : Complex Reservoirs

*Chairperson: Takehiro Minawa (MOECO)*

**10:45**      **Invited Talk 1: STIMULATION CHALLENGES FOR JAPANESE UNCONVENTIONAL GAS RESERVOIR: HIGH TEMPERATURE, HIGHLY HETEROGENEOUS, TIGHT VOLCANIC FORMATION:**  
Dr. Tatsuo Shimamoto (INPEX)

**11:15**      **Invited Talk 2: THE ONNAGAWA SHALE, MONTEREY-LIKE BIOSILICEOUS SHALE OF JAPAN AND ITS CHARACTERISTICS AS TIGHT OIL RESERVOIR:**  
Dr. Satoru Yokoi (JAPEX)

**11:45-13:15**      **Lunch**

## Invited Talk : Complex Reservoirs

*Chairperson: Takehiro Minawa (MOECO)*

**13:15**      **Invited Talk 3: MACHINE LEARNING, AUTOMATION AND DATA ANALYTICS FOR WELLBORE APPLICATIONS:**  
Dr. Ridvan Akkurt (Schlumberger)

## Special Session: Complex Reservoirs I

*Chairperson: Yoshinori Sanada (JAMSTEC)*

- 13:45**      **A REVIEW OF CURRENT COMPLETION TOWARD OPTIMIZATION OF WELL COMPLETION DESIGN AT NORTH MONTNEY AREA:** Hiroaki Kadono (JOGMEC), Hiroko Kozawa (JAPEX), Yoshiharu Ito, Sunao Takagi (JOGMEC), Ayae Goto (JAPEX)
- 14:05**      **B INVESTIGATING THE INFLUENCE OF ORGANIC MATTER POROSITY AND PORE MORPHOLOGY IN DUVERNAY FORMATION ORGANIC-RICH MUDSTONES:** Levi J. Knapp, Takashi Nanjo, Shinnosuke Uchida (JOGMEC), Omid Haeri Ardakani (Geological Survey of Canada), Hamed Sanei (Aarhus University)
- 14:25**      **C IMPACT OF SMALL FRACTURES ON POROSITY AND PERMEABILITY: IMPLICATIONS FROM DOLOMITE VEINS IN ONNAGAWA TIGHT FORMATION:** Tetsuzo Fukunari (JOGMEC), Takashi Tsuji, Kentaro Takeda, Tetsuya Tamagawa (JAPEX), Kitamura Shigehiro, Yoshiharu Ito (JOGMEC)
- 14:45-15:00**      **Coffee Break**

## Complex Reservoirs II

*Chairperson: Takeo Aoyama (JX Nippon Oil & Gas Exploration)*

- 15:00**      **D PRODUCTIVITY EVALUATION OF PRONOUNCED HETEROGENEOUS GAS RESERVOIR DRILLED AT HIGH OVERBALANCE:** Liu Jian Xin, Wei Xiaohan (CNOOC), Bei Gao, Chen Jichao, Zhang Wei (Schlumberger)
- 15:20**      **E LITHOLOGY CHARACTERISTICS AND LOGGING IDENTIFICATION OF THE BASEMENT ROCKS:TAKING BURIED HILLS IN CHAD, BONGOR BASIN AS AN EXAMPLE:** Linhui Yan, Yuwen Chang, Zhongyuan Tian, Xianbing Li, Li Wang, Xuerui Zheng (Petrochina)
- 15:40**      **F AN OBJECT-BASED MODELING AND SIMULATION OF CO2 PLUME DYNAMIC IN SALINE FORMATION IN NAM VANG FIELD, CUU LONG BASIN, VIETNAM:** Vo Thanh Hung, Yuichi Sugai, Kyuro Sasaki (Kyushu University)
- 16:00-16:15**      **Coffee Break**

## Complex Reservoirs III

*Chairperson: Aiko Takada (JAPEX)*

- 16:15**      **G DEVELOPMENT OF DOUBLE-PERMEABILITY TYPE COMPOSITIONAL SIMULATOR FOR PREDICTING ENHANCED COALBED METHANE RECOVERY:** Hiroaki Sakai, Masanori Kurihara (Waseda University)
- 16:35**      **H CASE STUDY: UNCERTAINTY ANALYSIS OF RESERVOIR PARAMETERS IN LOW RESISTIVITY HEAVY OIL RESERVOIR TO UNDERSTAND RESERVOIR PERFORMANCE:** Wu Yiming (CNOOC), Bei Gao, Chen Jichao, Huiheng Li, Zhang Wei (Schlumberger)
- 16:55**      **I EFFECTS OF MATRIX PROPERTIES ON SURFACTANT ENHANCED OIL RECOVERY IN FRACTURED RESERVOIRS:** Xiaoqian Cheng, Jon Kleppe, Ole Torsæter (Norwegian University of Science and Technology)

17:15-17:40     **General Meeting**

17:40-19:00     **Icebreaker**

## Technical Session: Friday, October 12

### Reservoir Characterization I

9:25            **Safety Notes**

*Chairperson: Takayuki Kanno (Schlumberger)*

9:30            **J DEVELOPMENT OF OPTIMIZATION PROGRAM FOR ESTIMATION OF THREE-PHASE RELATIVE PERMEABILITY FROM UNSTEADY-STATE COREFLOOD EXPERIMENTS BY GENETIC ALGORITHM AND ITERATIVE LATIN HYPERCUBE SAMPLING:** Kenta Takahashi (Waseda University), Hideto Utsunomiya (Hitachi Ltd.), Masanori Kurihara (Waseda University)

9:50            **K DEVELOPMENT OF PROGRAM COUPLING FLOW SIMULATOR WITH GEOMECHANICS SIMULATOR USING ADAPTIVE MESH REFINEMENT MODEL AND ANALYTICAL SOLUTION FOR SIMPLE ONE-DIMENSIONAL ROCK DEFORMATION:** Masaru Sawata (Waseda University), Shigeki Iwata (JOGMEC), Masanori Kurihara (Waseda University)

10:10           **L EVALUATION OF HORIZONTAL LAYERS BY CROSS-HOLE BOREHOLE RADAR:** Tsogtbaatar AMARSAIKHAN, Motoyuki SATO (Tohoku University)

10:30-10:45    **Coffee Break**

### Reservoir Characterization II

*Chairperson: Tetsuzo Fukunari (JOGMEC)*

10:45           **M BAYESIAN KRIGING FOR IMPROVED SPATIAL HETEROGENEITY MODELING IN CLASTIC RESERVOIRS:** Watheq Al-Mudhafar (University of Texas)

11:05           **N PRODUCTION EVALUATION FOR GAS CONDENSATE AT EARLY EXPLORATION STAGE BASED ON COMPREHENSIVE WELL LOG ANALYSIS AND DOWNHOLE FLUID ANALYSIS (DFA): CASE STUDY FROM BOHAI BAY:** Suogui Shang, Kechao Gao (CNOOC), Zhaoya Fan, Jichao Chen, Jinlong Wu, Bei Gao (Schlumberger)

11:25           **O A COMPREHENSIVE WORKFLOW USING NUCLEAR MAGNETIC RESONANCE (NMR) DATA TO EVALUATE AND CHARACTERIZE LOW RESISTIVITY LOW CONTRAST RESERVOIRS:** Tianmin Jiang, Michiko Hamada, Yuki Maehara, Samira Ahmad, Aldrick Garcia Mayans, Niranjan Aryal, Hanatu Kadir (Schlumberger)

11:45-13:15    **Lunch**

## Formation Evaluation

*Chairperson: Satoru Hada (GSC)*

- 13:15**      **S UNRAVELING COMPLEX RESISTIVITY RESPONSES, A COMPARISON OF LOW FREQUENCY LWD LATEROLOG TO HIGH FREQUENCY PROPAGATION AND WIRELINE DIELECTRIC:** Shim Yen Han (Schlumberger), Wang Xian Nan, Xiao Dong (CNOOC), David Maggs, Carlos Maeso, Fabienne Legendre, Richard Leech, Olivier Moyal (Schlumberger)
- 13:35**      **T “GAS EFFECT” REVISITED:** Yuhei Aihara, Hideo Komatsu (INPEX)
- 13:55-14:15**      **Coffee Break**

## Geophysics

*Chairperson: Yuki Maehara (Schlumberger)*

- 14:15**      **P AUTOMATED SEISMIC FIRST BREAK PICKING USING IMAGE-TO-IMAGE TRANSLATION WITH FULLY CONVOLUTION NEURAL NETWORKS:** Mitsuyuki Ozawa (JAPEx), Shinji Kawasaki, Motonori Higashinaka (JGI Inc.), Hiroshi Sato (University of Tokyo), Susumu Abe (JAPEx)
- 14:35**      **Q MARINE /AIRGUN SOURCES: SOUND LEVELS AND MINIMUMIZING THEIR ENVIRONMENTAL IMPACT:** John Tulett, Takayuki Kanno, Mehul Supawala (Schlumberger)
- 14:55**      **R FRACTURE EXTENSION BEHAVIOR DOMINATED BY GEOLOGIC FEATURES OF PREEXISTING NATURAL FRACTURES AND STRESS BARRIERS – AN INTERPRETATION OF MICROSEISMICITY AT THE NORTH MONTNEY UNCONVENTIONAL SHALE GAS FIELD, BRITISH COLOMBIA:** Yuto Sasaya, Yusuke Kumano (JAPEx), Isao Kurosawa (JOGMEC)
- 15:15-16:00**      **Closing**

## Symposium Committee 2018

Chairman	Masanori Kurihara, Waseda University
Vice-Chairman/Program	Tetsuya Yamamoto, JAPEX
Finance	Kunihiro Tsuchida/Tetsuzo Fukunari, JOGMEC
IT	Hideo Komatsu, INPEX
Sponsor	Takehiro Minawa, Mitsui Oil Exploration Co., Ltd.
Proceedings	Aiko Takada, JAPEX
Slide Center	Tadahiro Nagano, Schlumberger K.K.
Int'l Coordination	Yuki Maehara, Schlumberger K.K.
Facilities/Poster	Tetsuya Tamagawa, JAPEX
Award/Gift	Tatsuya Sato, Geothermal Energy R & D Co., Ltd.
Award/Count	Chisato Konishi, OYO Corporation
Entertainment	Satoru Hada, Geophysical Surveying Co., Ltd
Review	Shinichi Sakurai, Independent Scientist
Review	Hidekazu Kuraguchi, MCX
Review	Takuya Ishibashi, AIST
Review	Takeo Aoyama, JX Nippon Oil & Gas Exploration
Review	Yoshinori Sanada, JAMSTEC
Registration	Kanako Furuto, JAPEX

### Corresponding Address:

#### **Aiko Takada**

Japan Petroleum Exploration Company (JAPEX)  
SAPIA Tower, 1-7-12 Marunouchi, Chiyoda-ku, Tokyo  
100-0005, Japan  
Tel: +81-3-6268-7191  
e-mail: [symposium@jfes-spwla.org](mailto:symposium@jfes-spwla.org)



## Registration Information

### REGISTRATION FEE

	Pre-Registration (by Sep. 21)	On Site Registration
Member or Speaker	6,000 yen	7,000 yen
Non-member	9,000 yen	10,000 yen
Student	1,000 yen	1,500 yen

### Registration fee entitles a delegate to:

- Proceedings
- Technical program

### HOW TO REGISTER

The enclosed Pre-Registration form must be returned to :

**Aiko Takada**

Japan Petroleum Exploration Company (JAPEX)

SAPIA Tower, 1-7-12 Marunouchi, Chiyoda-ku, Tokyo

100-0005, Japan

Tel: +81-3-6268-7191

e-mail: [symposium@jfes-spwla.org](mailto:symposium@jfes-spwla.org)

Pre-registration is made only by submitting the **Pre-Registration form** no later than **September 21, 2018**. The payment is done on site. If any change of your registration status is necessary, it is achieved by writing to the above address no later than September 28 but never be by telephone. Any registration after September 21 is requested to be made on site.

### HOW TO PAY

Payments should be made on site by cash in Japanese Yen. Check or credit card will not be accepted.

## Speakers Information

All speakers are asked to make pre-registration by **September 2, 2018**.

All speakers are asked to carry their Power Point files in CD ROM or USB memory and transfer them at the Slide Center at their earliest of convenience.  
20 minutes are allocated for each oral presentation including question and discussion.  
Presentation should be made in English.

## General formation

**DATE:** Thursday, October 11, and Friday, October 12, 2018  
**VENUE:** Technology & Research Center (TRC)  
Japan Oil, Gas and Metals National Corporation (JOGMEC)  
1-2-2, Hamada, Mihama-ku, Chiba 261-0025, Japan  
Tel: +81 (43) 276 9212

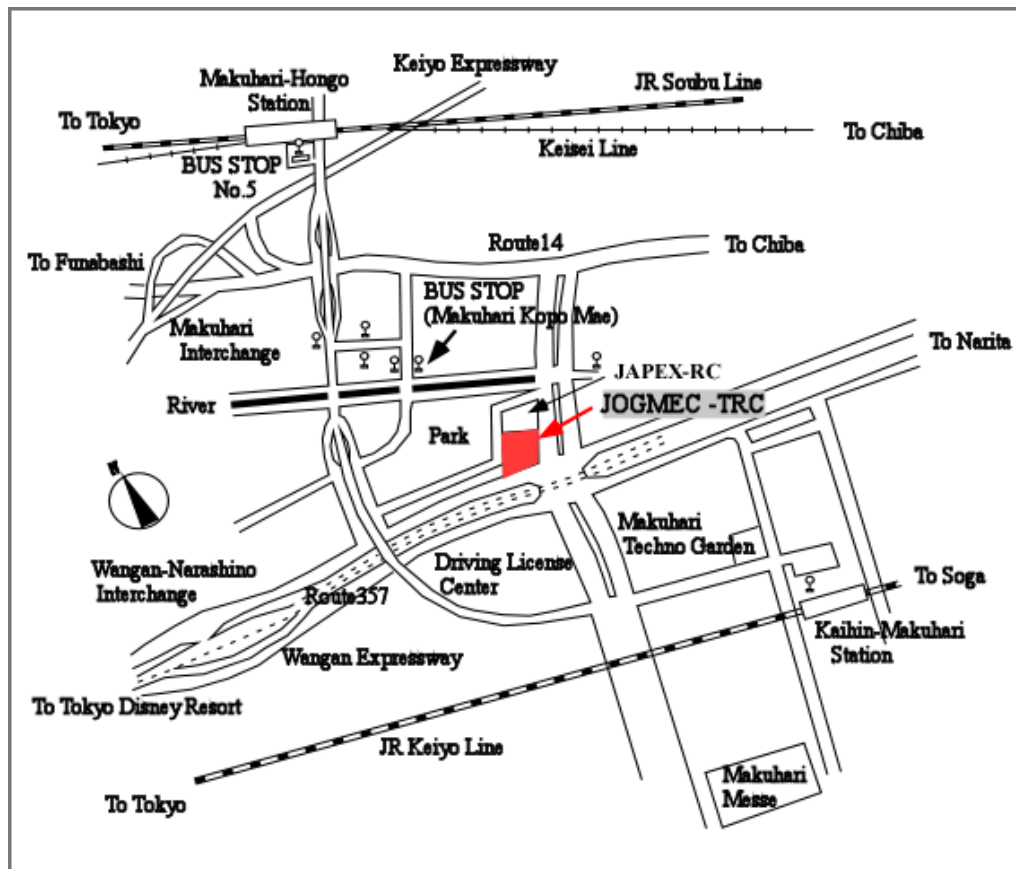
### HOW TO GET TO THE JOGMEC-TRC:

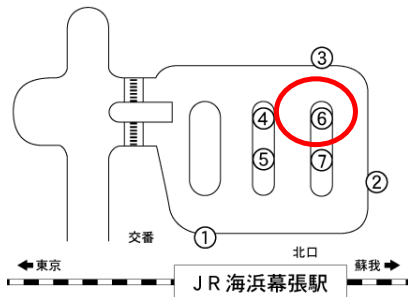
From Makuhari-Hongo Station (JR Sobu Line; 40 min from Tokyo station)  
- 10 min. by taxi or 30 min. on foot  
- 10 min. by City bus (see below map and bus schedule)

From Kaihin-Makuhari Station (JR Keiyo Line; 30 min. from Tokyo station)  
- 10 min. by taxi or 20 min. on foot  
- 10 min. by City bus (see below map and bus schedule)

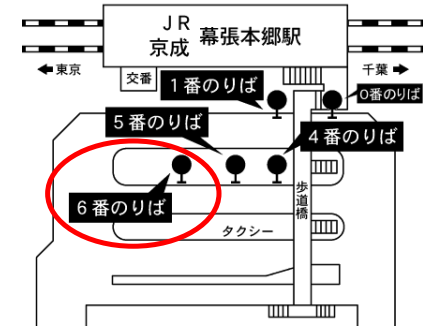
#### City Bus Service

City bus services are available from Makuhari-Hongo Station and Kaihin Makuhari Station. Please refer to the bus schedule in the next page. Take “Columbus City Line” and get off at “Sekiyu Kaihatsu Gijyutsu Center”. The fare is **170yen**.





## Bus Schedule -Columbus City Line-



海浜幕張駅  
Kaihinmakuhari-Station

石油開発技術センター  
Sekiyukaihatsugijyutu-Center  
(JOGMEC-TRC)

幕張本郷駅  
Makuharihongo-Station

幕張本郷駅行き (#22) For Makuharihongo-Station	
	平日 (Week days)
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22	

## Accommodation and other travel arrangement

Should you require any assistance for visa and other travel arrangement during the Symposium at JOGMEC-TRC Makuhari, do not hesitate to contact one of the JFES directors at the following address by e-mail:

**Aiko Takada**

Japan Petroleum Exploration Company (JAPEX)  
SAPIA Tower, 1-7-12 Marunouchi, Chiyoda-ku, Tokyo  
100-0005, Japan  
Tel: +81-3-6268-7191  
e-mail: [symposium@jfes-spwla.org](mailto:symposium@jfes-spwla.org)

\*We advise you to start preparation of your visa enough early. If invitation letter is required by the embassy at your location, contact with us as soon as possible.

### **Land Transportation from Narita Airport**

For foreign visitors, limousine bus service is the most convenient to the hotel. Ticket is available at the orange colored "Friendly Airport Limousine Bus" booths for the bus heading to your hotel. "Keisei Bus" goes to Makuhari area. The fee is around 2,400 – 3,000 yen depending on the destination.

Taxi to the hotel around Makuhari area is more than 10,000 yen. The taxi to the center of Tokyo is around 30,000 yen.

### **Accommodation**

Some examples of the hotels in Makuhari and Tokyo area are listed below and available at your choice. JFES does not have block booking, so make the reservations by directly contacting with the hotels.

#### **Makuhari Area**

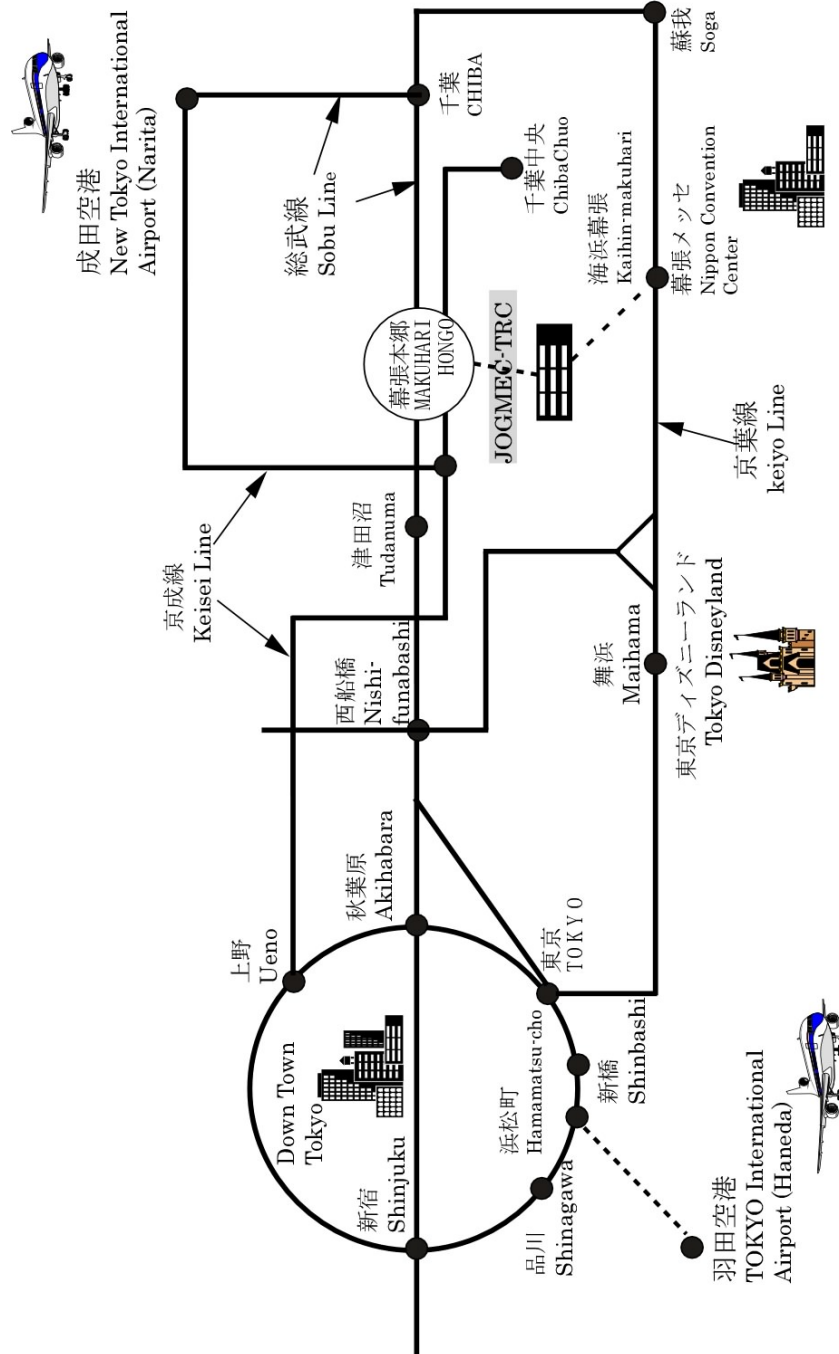
20 min. walk to JOGMEC-TRC or 10 min. by taxi

- Hotel the Manhattan  
<http://www.the-manhattan.co.jp/english/>
- Hotel Springs Makuhari  
<http://springs.co.jp/english/index.html>
- APA Hotel & Resort Tokyo Bay Makuhari  
[https://apahotel.com/ja\\_en/hotels/detail.php?id=16673](https://apahotel.com/ja_en/hotels/detail.php?id=16673)

## Tokyo area

40 min. to Makuhari Hongo (via JR Sobu Rapid Train) then bus

- Shinagawa Prince Hotel  
<http://www.princehotels.com/shinagawa/>
- Mércure Hotel Ginza Tokyo  
<http://www.accorhotels.com/gb/hotel-5701-mercure-tokyo-ginza/index.shtml>



# The 24th Formation Evaluation Symposium of Japan

JOGMEC-TRC, Chiba, Japan, October 11 - 12, 2018

## *Pre-Registration Form*

Name: \_\_\_\_\_

- SPWLA Member
- Non-Member
- Speaker
- Student
- JOGMEC-TRC staff

Affiliate: \_\_\_\_\_

Mailing address: \_\_\_\_\_

\_\_\_\_\_

Tel: \_\_\_\_\_ Fax: \_\_\_\_\_

e-mail: \_\_\_\_\_

### Fee

Registration:	Member	<input type="checkbox"/> 6,000 yen
	Non-Member	<input type="checkbox"/> 9,000 yen
	Student	<input type="checkbox"/> 1,000 yen

Total \_\_\_\_\_ yen

Please circle: Oct. 11<sup>th</sup> / Oct. 12<sup>th</sup> / Icebreaking party

Signature: \_\_\_\_\_

Note: Registration fee includes icebreaking party fee.

Please return this form complete by **September 21, 2018** to;

### **Aiko Takada**

Japan Petroleum Exploration Company (JAPEX)  
SAPIA Tower, 1-7-12 Marunouchi, Chiyoda-ku, Tokyo  
100-0005, Japan  
Tel: +81-3-6268-7191  
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