

東京大学大気海洋研究所共同利用研究集会  
DAY 1  
海底拡大系の総合研究：現状と将来  
-InterRidge-Japan 研究集会-

日時：平成25年11月12日（火）10:00～17:30  
場所：東京大学大気海洋研究所2F 講堂  
〒277-8564 千葉県柏市柏の葉5-1-5 TEL 04-7136-6011  
コンピーナー：沖野郷子、東京大学大気海洋研究所、okino@aori.u-tokyo.ac.jp  
砂村倫成、東京大学理学系研究科、sunamura@eps.s.u-tokyo.ac.jp  
富士原敏也、海洋研究開発機構、toshi@jamstec.go.jp

## プログラム

11月12日（火）

10:00-10:05 開会の挨拶 沖野郷子（東大大海研）

10:05-10:30

1. 南マリアナトラフ熱水地域における地震波速度構造と地震活動

佐藤利典・水野真理子・高田裕能（千葉大学）・山田知朗・一瀬建日・望月公廣・  
篠原雅尚（東大地震研）・島伸和（神戸大）

10:30-10:55

2. 南部マリアナトラフにおける熱水循環系の解明：ウラシマサイトの化学組成

多和田美紀・土岐知弘（琉球大学）

10:55-11:20

3. IODP 第331次航海掘削試料の解析結果から考える伊平屋北海丘熱水域の海底下鉍化作用

井上博靖・石橋純一郎（九州大）・IODP 第331次航海乗船研究者

11:20-11:45

4. 地球化学的手法と生態学的手法による熱水活動史の解析

熊谷英憲・渡部裕美（JAMSTEC）・石橋純一郎（九州大）・小島茂明（東大大海研）・  
中井俊一（東大地震研）・豊田新（岡山理科大）

11:45-12:10

5. Google ship, R/V Falkor でのHROV Nereus によるCayman Trough 調査航海と大深度海底熱水系の未踏課題

中村光一（産総研）

12:10-12:20

InterRidge-Japan 連絡

12:20-13:45 昼食 兼 懇親会

**PM International Session**

**“Mid-ocean ridges and hydrothermal activity in the Indian Ocean”**

*joint-hosted by Japan-Korea Marine Geoscience Symposium on Global Open Ocean Studies*

13:45-13:50

**Opening Remarks**

Jin-Oh PARK (AORI)

13:50-14:15

**6. Similarity and diversity in fluid geochemistry of four hydrothermal fields at CIR**

Shinsuke KAWAGUCCHI (JAMSTEC)

14:15-14:40

**7. Deep-sea hydrothermal vent fauna in the Central Indian Ridge**

Hiromi WATANABE (JAMSTEC), Grish BEEDESEE (Mauritius Oceanography Inst.), Tomomi OGURA (JAMSTEC), Suguru NEMOTO (Enoshima Aquarium), Takuya YAHAGI (AORI), Satoshi NAKAGAWA (Hokkaido University), Kentaro NAKAMURA (JAMSTEC), Ken TAKAI (JAMSTEC), Meera KOONJUL (Albion Fisheries Res. Centre), Daniel E.P. MARIE (Mauritius Oceanography Inst.)

14:40-15:05

**8. Population genetic study of endosymbiotic bacteria of deep-sea hydrothermal vent tubeworms and bivalve mussels**

Yong-Jin WON, Phuong Thao HO, Eunji PARK, Ye-Seul KWAN, Kang-Chon KIM, Sook-Jin JANG (Ewha Womans University), Soon Gyu HONG (Korea Polar Res. Inst.), and Robert C. VRIJENHOEK (MBARI)

15:05-15:30

**9. Geophysical investigations of Rodriguez Triple Junction and southern Mariana Trough back-arc basin**

Nobukazu SEAMA (Kobe University), Tomoaki YAMADA (ERI), Toshinori SATO (Chiba University), Tetsuo MATSUNO (NIPR), Taichi SATO (AIST), Eri IIZUKA, Haruka SHINDO (Kobe University), Yui NOGUCHI (Chiba University), Takahiro BABA (Kobe University), Akihiro KONO, Hirohoshi TAKADA (Chiba University), Takehi ISSE (ERI), Kyoko OKINO (AORI), Masanao SHINOHARA (ERI), Yoshifumi NOGI (NIPR), Kimihiro MOCHIZUKI (ERI), and Takeshi TSUJI (Kyushu University)

15:30-15:45

**Coffee Break**

15:45-16:10

**10. Deep-sea Magnetic Survey at the Yokoniwa-Rise, the Central Indian Ridge**

Masakazu FUJII (AORI), Taichi SATO (AIST), Kyoko OKINO (AORI), and Kentaro NAKAMURA (JAMSTEC)

16:10-16:35

**11. Preliminary result of Korean Australian-Antarctic Ridge expeditions**

Seung-Sep KIM (CNU)

16:35-17:00

**12. Upper mantle electrical resistivity structure beneath the Southwest Indian Ridge 37°**

Tetsuo MATSUNO (NIPR), Keiko MIZUMA, Nobukazu SEAMA (Kobe University), Yoshifumi NOGI (NIPR), and Kyoko OKINO (AORI)

17:00-17:25

**13. Ancient residual mantle peridotites preserved along the Prince Edward fracture zone of the Southwest Indian Ridge**

Hiroshi SATO (Senshu Univ), Ryoko SENDA (JAMSTEC), Tomoaki MORISHITA, Akihiko TAMURA (Kanazawa Univ), Katsuhiko SUZUKI (JAMSTEC), and Shoji ARAI (Kanazawa Univ)

17:25-17:30

**Closing Remarks**

**Research Meeting in Kashiwa Campus  
DAY 1**

**Integrated Study on Mid-Ocean Ridge Process  
-InterRidge-Japan Symposium-**

Date : November 12, 2013 (Thu) 10:00~17:30

Venue : Auditorium

Atmosphere and Ocean Research Institute, The University of Tokyo

5-1-5 Kashiwanoha, Kashiwa-shi, Chiba 277-8564, JAPAN

Tel: +81-4-7136-6011

Conveners:

Kyoko OKINO, The University of Tokyo (okino@aori.u-tokyo.ac.jp)

Michinari SUNAMURA, The University of Tokyo (sunamura@eps.s.u-tokyo.ac.jp)

Toshiya FUJIWARA, JAMSTEC (toshi@jamstec.go.jp)

**program**

***AM: InterRidge-Japan Symposium (in Japanese)***

**10:00-10:05                      Opening Remarks      Kyoko OKINO (AORI)**

10:05-10:30

**1. Seismic structure and seismicity around the hydrothermal area in the Souther Mariana Trough**

Toshinori SATO, Mariko MIZUNO, Hirokazu TAKADA (Chiba University), Tomoaki YAMADA, Takehi ISSE, Kimihiro MOCHIZUKI, Masanao SHINOHARA (ERI), and Nobukazu SEAMA (Kobe University)

10:30-10:55

**2. Hydrothermal circulation system in the southern Mariana Trough: geochemical composition of Urashima Site**

Miki TAWADA and Tomohiro TOKI (University of the Ryukyus)

10:55-11:20

**3. Sub-seafloor mineralization process in the Iheya North hydrothermal area: results of IODP Exp. 311 core analysis**

Hiroyasu INOUE and Jun-ichiro ISHIBASHI (Kyushu University), and IODP Exp.311 onboard scientific party

11:20-11:45

**4. Geochemical and ecological approaches to analyze the history of hydrothermal activity**

Hidenori KUMAGAI, Hiromi WATANABE (JAMSTEC), Jun-ichiro ISHIBASHI (Kyushu University), SHigeaki KOJIMA (AORI), Shunichi NAKAI (ERI), and Arada TOYODA (Okayama University of Science)

11:45-12:10

**5. HROV Nereus Survey report on Cayman Trough by Google ship, R/V Falkor: unexplored targets in ultra-deep hydrothermal system**

Koichi NAKAMURA (AIST)

12:10-12:20

**InterRidge-Japan Business Meeting**

12:20-13:45

**Luncheon**

**PM International Session (in English)**

**“Mid-ocean ridges and hydrothermal activity in the Indian Ocean”**

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17:25-17:30

**Closing Remarks**

## DAY 2

### The 2nd Japan-Korea Marine Geosciences Symposium On Global Open Ocean Studies

Date : November 13, 2013 (Wed) 10:00~17:30

Venue : Auditorium

Atmosphere and Ocean Research Institute, The University of Tokyo  
5-1-5 Kashiwanoha, Kashiwa-shi, Chiba 277-8564, JAPAN

Conveners:

Jin-Oh Park, AORI, The University of Tokyo (jopark@aori.u-tokyo.ac.jp)

Sang-Mook Lee, SEES, Seoul National University (smlee@snu.ac.kr)

Kyoko Okino, AORI, The University of Tokyo (okino@aori.u-tokyo.ac.jp)

### Program

10:00-10:25

1. **Consideration of time-dependent slab age and convergence rate in subduction model and its comparison with geochemical evidence for slab melting**

Yoon-Mi Kim, Changyeol Lee, and Sang-Mook Lee

10:25-10:50

2. **Alaska Megathrust: Imaging the megathrust zone and Yakutat/Pacific plate interface in the Alaska subduction zone**

YoungHee Kim, Geoffrey A. Abers, Jiyao Li, Douglas Christensen, Josh Calkins, and Stéphane Rondenay

10:50-11:15

3. **Characteristic of gigantic underthrust earthquakes, 2004 Sumatra, 2011 Tohoku, and 17<sup>th</sup> Century Hokkaido earthquake**

Yuichiro Tanioka, Aditya R. Gusman, and Ioki Kei

11:15-11:40

4. **The Nankai tsunamigenic décollement moisturized by Miocene fan turbidites**

Jin-Oh Park and Hajime Naruse

11:40-12:05

5. **Stagnant slab and mantle transition zone under the Caroline plate in the equatorial western Pacific**

Sang-Mook Lee

12:05-13:05 Lunch Break

13:05-13:30

**6. The Tectonic activity along Sunda Arc after 2004 Sumatra-Andaman giant earthquake: Review of research activities, results and the possibility of future earthquake in Indonesia**

Udrekh, Yusuf Surachman, Teguh Fayakun, Haryadi Permana, Digital Marine Resource Mapping Team, and 2004 Sumatra-Andaman Earthquake consortium

13:30-13:55

**7. Updates on marine geological and geophysical studies in Myanmar**

Moe Kyaw, Soe Thura Tun, and Thura Aung

13:55-14:20

**8. The nitrogen cycle in the Indian Ocean**

Sunyoung Park

14:20-15:00 Discussion

15:00-15:05 Closing Remarks Sang-Mook Lee

15:30-17:30 Business Meeting

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## **Poster**

**#1 Distribution and deformation of submarine faults in the outer-arc high off northwest Sumatra**

Kenji Hirata, Ayanori Misawa, Leonardo Seeber, Kohsaku Arai, Juichiro Ashi, Riza Rahardiawan, Udrekh, Hisatoshi Baba, Masataka Kinoshita, Toshiya Fujiwara, Hidekazu Tokuyama, Yasuyuki Nakamura, Haryadi Permana, and Yusuf. S. Djajadihardia