

Collaborative Research  
in **GLOBAL OCEAN**  
and **SUBDUCTION**  
*-Toward Pacific Array-*

Program Book

April 13 (Thu) - 14 (Fri), 2017  
Bldg. 24, # 103, SNU

**Fund & Support**

National Research Foundation of Korea  
Japan Society for the Promotion of Science  
Ministry of Trade, Resource, and Energy  
School of Earth and Environmental Sciences, SNU



# Collaborative research in global ocean and subduction: toward Pacific Array

April 13th (Thu)

## Session 1 Session moderator Hitoshi Kawakatsu

- 13:30-14:00 **Hisashi Utada** Korean-Japanese collaboration for the first phase of  
ERI, U of Tokyo Pacific Array
- 14:00-14:30 **YoungHee Kim** Teleseismic constraints on the geological environment of deep  
Seoul Nat'l Univ. episodic slow earthquakes in subduction zone forearcs
- 14:30-15:00 **Hitoshi Kawakatsu** Elucidation of the oceanic lithosphere-asthenosphere system  
ERI, U of Tokyo via Pacific Array

*Break 30 minutes*

## Session 2 Session moderator Sang-Mook Lee

- 15:30-16:00 **Hiroko Sugioka** Activities on our broadband ocean bottom seismic observation  
Kobe Univ.
- 16:00-16:30 **Kazunori Yoshizawa** 3-D S-wave structure in the upper mantle beneath the Sea of  
Hokkaido Univ. Japan from surface-wave analysis using multiple seismic arrays
- 16:30-17:00 **Seongryong Kim** Seismic constraints on the modification of continental margin  
Seoul Nat'l Univ. lithosphere beneath the Korean Peninsula
- 17:00-17:30 **Takehi Isse** 3-D shear wave structures beneath the western Pacific Ocean  
ERI, U of Tokyo from seafloor and land observation



April 14th (Fri)

## Session 1 Session moderator YoungHee Kim

- 09:00-09:30 **Haemyeong Jung** Experimental study on the deformation of lawsonite  
Seoul Nat'l Univ. blueschist at high pressures and implications for earthquakes  
in subduction zones
- 09:30-10:00 **Kiyoshi Baba** Implication from electrical conductivity to the cooling history of  
ERI, U of Tokyo the upper mantle beneath the northwestern Pacific
- 10:00-10:30 **Jung-Woo Park** Platinum group element geochemistry of arc magmas and  
Seoul Nat'l Univ. implications for sub-arc melting process
- 10:30-11:00 **Yi Cao** Seismic anisotropies in subduction zone and orogenic belt:  
Seoul Nat'l Univ. Implications from an example of natural peridotites

*Break 10 minutes*

## Session 2 Session moderator Seongryong Kim

- 11:10-11:40 **Nobukazu Seama** Mantle heterogeneity beneath the Mariana Trough  
Kobe Univ. Back-Arc Basin
- 11:40-12:10 **Yoon-Mi Kim** Gravity data in the Ulleung Basin (East Sea/Sea of Japan)  
KIGAM and its implications for the crustal structure

*Lunch 12:10-13:30*

## Session 3 Session moderator Takehi Isse

- 13:30-14:00 **Sang-Mook Lee** Differing style of basin openings resulting from subduction  
Seoul Nat'l Univ. in the Northwestern Pacific
- 14:00-14:30 **Kwang-Hee Kim** Monitoring seismicity in Korea using Ocean Bottom  
Pusan Nat'l Univ. Seismographs
- 14:30-15:00 **Yoshio Fukao** Mechanism of the 2015 volcanic tsunami earthquake  
JAMSTEC near Torishima, south of Japan
- 15:00-15:30 **Tae-Seob Kang** The 12 September 2016 M<sub>w</sub> 5.8 Gyeongju, Korea, earthquake:  
Pukyong Nat'l Univ. Observation and questions
- 15:30-16:00 **Tae-Kyung Hong** Seismic hazard potentials in the Korean Peninsula and  
Yonsei Univ. the 12 September 2016

*Break 30 minutes*

## Session 4 Session moderator Kiyoshi Baba

- 16:30-17:00 **Satoru Tanaka** Toward figuring out Pacific Superplume by Pacific Array  
JAMSTEC
- 17:00-17:30 **Sung-Joon Chang** Ubiquitous lower mantle anisotropy beneath subduction zones:  
Kangwon Nat'l Univ. new rheological and mineralogical constraints
- 17:30-18:00 **Daisuke Suetsugu** Geophysical imaging of mantle plumes beneath the  
JAMSTEC South Pacific by seafloor observation