

# International Workshop on establishment of prediction of strong ground motions and earthquake disaster of large earthquakes

February 20 – 21, 2015

Friday, February 20, 1330-1710

Saturday, February 21, 0930-1510

Obaku plaza seminar rooms 4 and 5, Uji campus, Kyoto University

## Program

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Friday, February 20<sup>th</sup>

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1330-1335

Opening Address

Iwata, Tomotaka

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### **SESSION 1      1335-1505**

Period-dependent seismic radiation for the 2011 Tohoku earthquake estimated by multi period-band waveform modeling

#Kubo, Hisahiko, Tomotaka Iwata, Kimiyuki Asano and Shin Aoi

Dynamic triggering between two faults during the 2010 Darfield, New Zealand, earthquake

#Tanaka, Miho, Kimiyuki Asano, Tomotaka Iwata and Hisahiko Kubo

Estimating seismic attenuation in sediments from deconvolution analysis of KiK-net borehole records

#Nakahara, Hisashi, Rintaro Fukushima, and Takeshi Nishimura

Identification of the velocity structure model of Kyoto basin for strong motion prediction using observed earthquake and microtremor motions

#Fukihara, Kei, Shinichi Matsushima and Hiroshi Kawase

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### **SESSION 2      1525-1710**

The Indirect Boundary Element Method (IBEM) for Seismic Response of Topographical Irregularities in Layered Media

Perton, Mathieu , Marcial A. Contreras-Zazueta, and #Francisco J. Sánchez-Sesma

Evaluations of the effects of the basin edge by using H/V spectral ratios of microtremors  
#Fukuoka, Yuri, Shinichi Matsushima, Hiroshi Kawase, and Francisco J. Sánchez-Sesma

Estimation of S-wave underground structures in Myanmar using microtremors  
#Hirokawa, Yuki, Shinichi Matsushima, Hiroshi Kawase, Tun Naing, and Myo Thant

Observation and simulation of interstation Green's functions obtained from continuous  
microtremor observation in the Osaka basin  
#Asano, Kimiyuki, Tomotaka Iwata, Haruko Sekiguchi, Kazuhiro Somei, Ken Miyakoshi,  
Shin Aoi, and Takashi Kunugi

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1730-1900

Reception (Restaurant Kihada)

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Saturday, February 21<sup>st</sup>

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**SESSION 3: 930-1100**

Numerical shake prediction for Earthquake Early Warning: data assimilation, real-time shake-mapping, and simulation of wave propagation

#Hoshiba, Mitsuyuki, and Shigeki Aoki

S-wave impedance measurements of the uppermost material in ground surface layers: vertical load excitation on circular disk

#Goto, Hiroyuki, Nobuaki Tanaka, Sumio Sawada, and Hideki Inatani

Comparison of equivalent linear and nonlinear site response analysis: Results at small to large shear strains

#Carlton, Brian, and Kohji Tokimatsu

Site response of clay improved by deep soil mixing panels.

#Tamura, Shuji, Mohammad Khosravi, Ross W. Boulanger, Daniel W. Wilson, C. Guney Olgun, Deepak Rayamajhi, and Yongzhi Wang

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**SESSION 4: 1120-1230**

Strong motion simulation of the 1987 Chiba-ken-toho-oki earthquake Using stochastic Green's function method empirically considering surface waves and scattering waves  
Sato, Toshimi

Attenuation characteristics of strong ground motion from the megathrust earthquakes in subduction zone - On the path effects –

#Si, Hongjun, Kazuki Koketsu, and Hiroe Miyake

Source scenarios of megathrust earthquakes and their application for broadband strong motion modeling

Pulido, Nelson

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LUNCH TIME 1230-1330

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**SESSION 5: 1330-1500**

Bulk simulation of ground motions for heterogeneous source models using reciprocity approach: example for the Nankai earthquake and Osaka Konohana site

# Anatoly, Petukhin, and Haruko Sekiguchi

Spatial variations derived from microtremors and MASW method and their influence to strong motion characteristics

#Kosaka, Hiroyuki, Hiroshi Kawase, and Shinichi Matsushima

Comparison of earthquake and microtremor horizontal-to-vertical spectral ratios and its inversion to estimate velocity structures

#Mori, Yuta, Shinichi Matsushima, and Hiroshi Kawase

Underground structure identification and bedrock wave estimation based on horizontal/vertical ratio and borehole ratio

#Nagashima, Fumiaki, Hiroshi Kawase, and Shinichi Matsushima

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**1500-1510**

Closing Remarks

Kawase, Hiroshi