

2017 Taiwan-Japan-New Zealand Seismic Hazard Assessment Meeting

2017.10.30 (Mon.) - 2017.11.03 (Fri.)

Meeting: 2017.10.30 (Mon.) - 2017.10.31 (Tue.)

Field Trip: 2017.11.01(Wen.) - 2017.11.03 (Fri.)

Location: Room3, International Conference Hall, Kung-Fu Campus, National Cheng Kung University, Tainan, Taiwan

Agenda

Oral Session

2017.10.30 (Monday)

2017.10.18

08:30-09:00	Registration	
09:00-09:10	Opening (Ruey-Juin Rau)	
Session I: PHA Progress		
Chair	Ruey-Juin Rau and Bill Fry	
09:10-09:25	Matt Gerstenberger (GNS)	Recent Seismic Hazard Modelling in New Zealand
09:25-09:40	Hiroyuki Fujiwara (NIED)	National seismic hazard maps for Japan and an integrated system for sharing information, J-SHIS
09:40-09:55	Ruey-Juin Rau and Ya-Ting Lee (NCKU & NCU)	The 2017 update of TEM PSHA
09:55-10:20	Mark Petersen (USGS)	US National Seismic Hazard Model
10:20-10:50	Coffee Break	
Session II: NSHM Model Validation		
Chair	Matt Gerstenberger and Kuo-Fong Ma	
10:50-11:05	Nobuyuki Morikawa (NIED)	Validation of new probabilistic seismic hazard maps for Japan
11:05-11:20	Mark Stirling (U of Otago)	Points in hazard space: testing PSHA with multiple metrics
Session III: Deformation Model and Earthquake Hazard		
Chair	Ian Hamling and Kuo-En Ching	
11:20-11:35	Ian Hamling (GNS)	Geodetic observations of the pre-, co- and post-seismic deformation associated with the 2016 Mw7.8 earthquake and its implications for seismic hazard in the region
11:35-11:50	Kuo-En Ching (NCKU)	Seismic Hazard of the Hengchun Fault Based on the Geodetic Data From 2002 to 2013

11:50-12:05	Yuehua Zeng (USGS)	Deformation Model for the Uniform California Earthquake Rupture Forecast 3 (UCERF3) and Its Application to the Seismic Hazard Analysis
12:05-13:30 Lunch		
Session IV: Site Amplification		
Chair	Katsumi Kimura and E. Abbott	
13:30-13:45	Anna Kaiser (GNS)	The role of complex site and basin response in Wellington city, New Zealand, during the 2016 Mw 7.8 Kaikōura earthquake and other recent sequences
13:45-14:00	Shigeki Senna (NIED)	Modeling of the subsurface structure from the seismic bedrock to the ground surface for a broadband strong motion evaluation in Kumamoto plain
14:00-14:15	Chun-Hsiang Kuo (NCREE)	Site amplification and the effect on local magnitude determination
14:15-14:45	Poster Session and Coffee Break	
Session V: Ground Motion Prediction and Scenarios		
Chair	Shin Aoi and M. Stirling	
14:45-15:00	Takahiro Maeda (NIED)	Long-period ground motion simulation, and application of the simulation data to damage estimation of high-rise buildings
15:00-15:15	Po-Shen Lin and Yin-Tung Yen (Sinotech)	The integration of Ground-Motion Prediction Equations and Ground Motion Simulations
15:15-15:30	Group Photo	
15:30-17:30	Poster Session and Group Discussion	
18:30	Dinner	

2017.10.31 (Tuesday)

Session VI: Fault Structure and Subduction Zone Modeling		
Chair	Takashi Azuma and Bruce Shyu	
09:00-09:15	Andy Nicol (U of Canterbury)	Large magnitude earthquakes and seismic hazard in New Zealand
09:15-09:30	Ken Xiansheng Hao (NIED)	Surface rupture and crustal deformation around the Hundalee Fault during the 2016 Kaikoura Mw 7.8 earthquake
09:30-09:45	Marco Pagani (GEM)	Modeling subduction earthquake sources for seismic hazard analysis
09:45-10:45	Poster Session and Coffee Break	
10:45-12:00	Discussion	
12:00-13:30 Lunch		
Session VII: Hazard and Risk Products		
Chair	Ken Hao and Chung-Han Chan	
13:30-13:45	Toshihiro Yamada (OYO RMS Corporation)	Prototyping Korean PSHA Model
13:45-14:00	Lizzie Abbott (GNS)	Seismic hazard and risk products in New Zealand
14:00-14:15	Kuo-Fong Ma (NCU)	Taiwan Earthquake Model (TEM): from understanding of Seismic Hazard to Risk assessment
14:15-15:00	Poster Session and Coffee Break	
15:00-17:00	Discussion & Conclusions	

Group Discussion

- ✓ Group 1: PSHA and model validation (Ken Hao and Matt Gerstenberger)
- ✓ Group 2: Ground motion prediction and site amplification (Po-Shen Lin and A. Kaiser)
- ✓ Group 3: Scenarios and subduction zone modeling (Bill Fry and Shin Aoi)
- ✓ Group 4: Hazard and risk products (Matt Gerstenberger and Kuo-Fong Ma)
- ✓ Group 5: Fault structure and deformation model (Bruce Shyu and A. Nicol)

Poster Session

Num.	Name	Title
1	Shinichi Kawai (NIED)	Japan Seismic Hazard Information Station, J-SHIS
2	Hiromitsu Nakamura (NIED)	Improvement of The Real-Time System for Damage Estimation (J-RISQ) Based on The 2016 Kumamoto Earthquakes
3	Shohei Naito (NIED)	Development of Image Recognition and Machine Learning Methods for Estimate Damage of Buildings by Use of The Aerial Photographs Acquired at The 2016 Kumamoto Earthquake
4	Hiroki Azuma (NIED)	Building Observation via Smartphone as a Seismometer
5	Katsumi Kimura (NIED)	Construction of 3D geologic model with concealed Active faults using thousands of borehole data in the Tokyo Lowland, Japan
6	Hongjun Si (Seismological Research Institute Inc.)	High Attenuation Rate for Shallow, Small Earthquakes in Japan
7	Takashi Azuma (GSJ/AIST)	
8	Tadashi Kito (OYO Corporation)	Tsunami Hazard Assessment Along The Coast in Japan and Potential Tsunami Risk in Taiwan.
9	Shu-Hsien Chao (NCREE)	Development of Path-Dependent Ground Motion Model for Taiwan and Its Impact on Probabilistic Seismic Hazard Analysis
10	Jyun-Yan Huang (NCREE)	Inversion Seismic Parameter Model of Shallow Earthquakes for Stochastic Ground Motion Simulation in Taiwan
11	Che-Min Lin (NCREE)	Microearthquake monitoring of the Shanchiao fault in northern Taiwan
12	Arvind Kumar (NCREE)	Integrated Radon Monitoring Around Shanchiao Fault and Tatun Volcanic Areas of Northern Taiwan Using Solid State Nuclear Track Detectors
13	Chiao-Chu Hsu (NCREE)	Regional Characteristics of Ground Motion within Taiwan
14	Wen-Tzong Liang (IES, AS)	Crustal Stress Field in Taiwan Inferred from Regional-scale Damped Inversion of AutoBATS CMT Solutions
15	Chun-Te Chen (IES, AS)	Estimate Shallow S-Wave Velocity Structure in Western Plain of Taiwan Using GA-Haskell Method
16	Chih-Hsuan Sung (NCU)	Analysis of Single-Path Sigma from Single-Station GMPEs
		Single-Path Ground-Motion Prediction Equations
17	Ming-Kai Hsu (NCU)	Using Earthquake Building Damage Data in Establishing Building Fragility Curves and its Application
18	Wen-Fei Peng (NCKU)	
19	En-Jui Lee (NCKU)	Rapid Earthquake Detection Through GPU-Based Template Matching

20	Pei-Ching Tsai (NCKU)	Coseismic and Postseismic Deformation of The 2016 Mw 6.5 Meinong, Taiwan, Earthquake
21	Chih-Yu Chang (NCKU)	Relocation and Focal Mechanisms of The 2016 M_L 6.6 Meinong, Taiwan, Earthquake Sequence
22	Po-Ching Tseng (NCKU)	Coseismic and Postseismic Velocity Changes caused by the 2016 Mw 6.5 Meinong, Taiwan Earthquake using Ambient Seismic Noise