

## IASPEI Seismological Observation and Interpretation

# S01. Open session

Session: **S01-1**  
 Session title: Open session I  
 Type: Oral  
 Date: Monday, July 31, 2017  
 Time: 08:30 - 10:00  
 Room: Room 501  
 Chairs: Thomas Meier (University of Kiel)  
 Dmitry Storchak (International Seismological Centre)

Time	Title	Program No.
08:30	<b>Automatic hypocenter determination for the Seismological Bulletin of Japan using Bayesian estimation and its applications</b> <u>Koji Tamaribuchi</u>	S01-1-01
08:45	<b>Automated seismic event location combining waveform stacking and relative location techniques</b> <u>Francesco Grigoli</u> , Simone Cesca, Frederic Massin, Anne Obermann, Wilfried Strauch, John Clinton, Stefan Wiemer	S01-1-02
09:00	<b>Over 20 years of HYPOSAT: Newest developments</b> <u>Johannes Schweitzer</u>	S01-1-03
09:15	<b>A tremor location method using products of cross correlations</b> Ka Lok Li, Hamzeh Sadeghisorkhani, Giulia Sgattoni, <u>Olafur Gudmundsson</u> , Roland Roberts	S01-1-04
09:30	<b>Rapid estimation of seismic moment, magnitude and energy for small to large events: improvement from Central Italy, 2016 seismic sequence</b> <u>Antonella Gallo</u> , Giovanni Costa, Rita De Nardis, Luisa Filippi, Giusy Lavecchia, Elisa Zambonelli	S01-1-05
09:45	<b>Towards routine determinations of earthquake focal mechanisms obtained from P-wave first motion polarities</b> <u>Konstantinos Lentas</u> , Dmitry Storchak	S01-1-06

Session: **S01-2**  
 Session title: Open session II  
 Type: Oral  
 Date: Monday, July 31, 2017  
 Time: 10:30 - 12:00  
 Room: Room 501  
 Chairs: Thomas Meier (University of Kiel)  
 Aitaro Kato (University of Tokyo)

Time	Title	Program No.
10:30	<b>Calculating the ISC's own magnitudes</b> <u>Elizabeth Entwistle</u> , Domenico Di Giacomo, Dmitry Storchak	S01-2-01
10:45	<b>Policy issues for the European Seismological Services within EPOS</b> <u>Florian Haslinger</u> , EPOS Seismology Consortium	S01-2-02
11:00	<b>The Mexican National Seismological Service: An overview</b> <u>Xyoli Perez-Campos</u> , SSN Personnel	S01-2-03
11:15	<b>Compilation of a Seismic Bulletin for the European Arctic</b> <u>Johannes Schweitzer</u> , Yana Konechnaya, Andrey Fedorov, Steven Gibbons, Berit Paulsen, Myrto Pirli	S01-2-04
11:30	<b>The ISC-GEM Global Instrumental Earthquake Catalogue: Current status and efforts to extend the period 1904-1919</b> <u>Domenico Di Giacomo</u> , Bob Engdahl, Dmitry Storchak, James Harris	S01-2-05
11:45	<b>Development of a web-application system for seismic waveform data observed at real-time with the seafloor seismic network, DONET</b> Daisuke Sugiyama, Morifumi Takaesu, Hiroki Horikawa, Kentaro Sueki, Narumi Takahashi, <u>Seiji Tsuboi</u>	S01-2-06

Session: **S01-3**  
 Session title: Open session III  
 Type: Oral  
 Date: Tuesday, August 1, 2017  
 Time: 08:30 - 10:00  
 Room: Room 501  
 Chairs: Domenico Di Giacomo (International Seismological Centre)  
 Aitaro Kato (University of Tokyo)

Time	Title	Program No.
08:30	<b>The Global Seismographic Network (GSN): New VBB Borehole Sensors, Sensor Emplacement Techniques and Data Quality Assessment using MUSTANG</b> <u>Katrin Hafner</u> , Peter Davis, David Wilson, Robert Woodward	S01-3-01
08:45	<b>Anatomy of a subduction zone – seismicity structure of the northern Chilean forearc from &gt;100,000 relocated earthquake hypocenters</b> <u>Bernd Schurr</u> , Christian Sippl	S01-3-02

09:00	<b>The 30 May 2015 Bonin Deep Earthquake and the 660-km Discontinuity Around its Source Region</b> <u>Keiko Kuge</u>	S01-3-03	11:30	<b>Exhaustive analysis of surface wave propagation in a combined use of active and passive surveys for detailed site characterization</b> <u>Paolo Bergamo</u> , Stefano Marano, Manuel Hobiger, Donat Faeh	S01-4-05
09:15	<b>The January 2017 Barrow Strait Earthquake and Subsequent Seismic Activity in Arctic Canada</b> Allison Bent, Nicholas Ackerley, Michal Kolaj, <u>John Adams</u>	S01-3-04	11:45	<b>Investigation of deep sedimentary and crustal structures with passive seismic methods</b> <u>Dario Chieppa</u> , Manuel Hobiger, Marco Pilz, Donat Faeh	S01-4-06
09:30	<b>Long Duration of Ground Motion in the Paradigmatic Valley of Mexico</b> <u>Victor M. Cruz-Atienza</u> , Josue Tago, Jose David Sanabria-Gomez, Emmanuel Chaljub, Vincent Etienne, Jean Virieux, Luis Quintanar	S01-3-05			
09:45	<b>Difference in energy radiation from earthquakes with similar moment magnitude and focal mechanism: the broadband body-wave magnitudes of the 2014 Ludian and Jinggu, Yunnan Province, China, earthquake</b> <u>Zhongliang Wu</u> , Changsheng Jiang, Xiaoxiao Song	S01-3-06			

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Session: **S01-P**  
Type: Poster  
Date: Tuesday, August 1/ Wednesday, August 2, 2017  
Time: 15:30 - 16:30  
Room: Event Hall

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Session: **S01-4**  
Session title: Open session IV  
Type: Oral  
Date: Tuesday, August 1, 2017  
Time: 10:30 - 12:00  
Room: Room 501  
Chairs: Domenico Di Giacomo (International Seismological Centre)  
Elizabeth Entwistle (International Seismological Centre)

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Time	Title	Program No.
10:30	<b>Recent earthquakes at Disko Island, Greenland, with focal mechanisms</b> <u>Trine Dahl-Jensen</u> , Peter H Voss, Tine B Larsen	S01-4-01
10:45	<b>New insights into volcano-tectonic seismicity patterns in the Virunga Volcanic Province, Democratic Republic of the Congo, from a new broadband seismic network (KivuSNet)</b> <u>Adrien Oth</u> , Julien Barriere, Nicolas d'Oreye, Francois Kervyn	S01-4-02
11:00	<b>Monitoring eruption activity using temporal stress changes at Mount Ontake volcano</b> Toshiko Terakawa, Yoshiko Yamanaka, Yuta Maeda, Shinichiro Horikawa, Takashi Okuda	S01-4-03
11:15	<b>Long-term monitoring of seismic velocity around a source fault of the 1995 Kobe earthquake</b> <u>Ryoya Ikuta</u> , Koshun Yamaoka, Takahiro Kunitomo, Kinya Nishigami, Toshiki Watanabe	S01-4-04

Title	Program No.
<b>Fast hypocenter determination with a 3D velocity model and its implication for seismicity monitoring</b> <u>Akio Katsumata</u>	S01-P-01
<b>Moment tensor inversion of shallow offshore earthquakes in the Nankai subduction zone using a three-dimensional velocity structure model</b> <u>Shunsuke Takemura</u> , Takeshi Kimura, Katsuhiko Shiomi, Hisahiko Kubo, Tatsuhiko Saito	S01-P-02
<b>Local Magnitude, ML Scale for the Philippines: Investigation of Hypocentral Distance Dependence</b> <u>Johnlery Deximo</u> , Tatsuhiko Hara	S01-P-03
<b>The Mechanism of Rare Earthquakes in Pidie Jaya, Aceh Derived from Source Parameter and Shear Wave Splitting Tomography</b> <u>Rexha Verdhora Ry</u> , Andri Dian Nugraha, Sri Widiyantoro, Riskiray Ryannugroho, Kadek Hendrawan Palgunadi, Muksin Umar, Zulfakriza Zulfakriza, Kemal Erbas	S01-P-04
<b>Rupture process of the 1979 Tumaco, Colombia, earthquake using teleseismic body waves</b> <u>Masahiro Yoshimoto</u> , Hiroyuki Kumagai, Nelson Pulido	S01-P-05
<b>Stress drop characteristics of the 2008-2016 Storfjorden earthquake sequence</b> <u>Lars Ottemoller</u> , Norunn Tjaaland, Hasbi Ash Shiddiqi, Won-Young Kim	S01-P-06
<b>Adding manual picks from OBS stations into the ISC Bulletin: the example of the 7D Cascadia Initiative Community Experiment</b> Domenico Di Giacomo, Luke Cottell, Elizabeth Entwistle, James Harris, Dmitry Storchak	S01-P-07

<b>The current status of the ISC Bulletin</b> <u>Elizabeth Entwistle</u> , Rose Hulin, Blessing Shumba, Rebecca Verney, Jennifer Weston, Elizabeth Ayres, James Harris, Dmitry Storchak, Lonn Brown, Kathrin Lieser, Edith Korger	S01-P-08	<b>The seismic sequence of the magnitude 5.7 crustal earthquake of 2014 of Focsani Basin (Romania) – relevant data regarding the stress field in front of the Southeastern Carpathians bend</b> <u>Andreea Craiu</u> , <u>Luminita Angela Ardeleanu</u> , Marius Craiu, Mihail Diaconescu	S01-P-19
<b>Automatic classification and onset estimation of seismic P and S wave signals recorded at local seismic network using artificial neural networks</b> <u>Timo Tiira</u>	S01-P-09	<b>Distribution of deep earthquakes in the subducting Pacific slab beneath Japan</b> <u>Ayako Tsuchiyama</u> , Junichi Nakajima, Toru Matsuzawa	S01-P-20
<b>The use of seismic arrays in geodynamic monitoring of the East European platform</b> <u>Irina Sanina</u> , Ivan Kitov, Margarita Nesterkina, Natalia Konstantinovskaya, Svetlana Kishkina	S01-P-10	<b>The McAdam, New Brunswick Earthquake Swarms of 2012 and 2015-16: Extremely Shallow, Natural Events</b> Allison Bent, Stephen Halchuk, Veronika Peci, Karl Butler, Kenneth Burke, <u>John Adams</u> , Nawa Dahal, Sylvia Hayek	S01-P-21
<b>Development of JAMSTEC Ocean-bottom Seismology Database (J-SEIS) to download DONET Event Data and Borehole Continuous Data (4)</b> <u>Hiroki Horikawa</u> , Kentaro Sueki, Kensuke Suzuki, Eiichiro Araki, Akira Sonoda, Narumi Takahashi, Seiji Tsuboi	S01-P-11	<b>Depth of earthquakes in Greenland</b> <u>P. H. Voss</u> , T. B. Larsen, T. Dahl-Jensen	S01-P-22
<b>Very wide observation range of the developed borehole stress meter and comparison with STS seismometer</b> <u>Hiroshi Ishii</u> , Muneyoshi Furumoto, Yasuhiro Asai	S01-P-12	<b>Mw 5.5 Gyeongju Earthquake of 12 September 2016 in Southeastern Korea: SCR Earthquake Sequence with Moderate Stress Drop</b> <u>Won-Young Kim</u> , Yomggyu Ryoo	S01-P-23
<b>High-frequency geophone with correction scheme for mine explosion monitoring</b> <u>Alina Besedina</u> , Yaroslav Denisenko, Evgeny Vinogradov	S01-P-13		
<b>RESIF Seismology Distributed System : Data and Services</b> <u>Catherine Pequegnat</u> , Working Groupgroup RESIF SI-	S01-P-14		
<b>Data quality Improvement of the Algerian Digital Seismic Network (ADSN)</b> <u>Azouaou Ailij</u> , Abdelkarim Yelles-Chaouche, Mohamed Ouakedi, Hamoud Beldjoudi, Abdelaziz Kherroubi, Izeddine Ameur	S01-P-15		
<b>Design and Implementation of the National Seismic Monitoring Network in the Kingdom of Bhutan</b> <u>Shiro Ohmi</u> , Hiroshi Inoue, Jamyang Chopel, Phuntso Pelgay, Dowchu Drukpa	S01-P-16		
<b>New steps towards local seismic hazard assessment of Bucharest (Romania)</b> <u>Elena Manea</u> , Clotire Michel, Manuel Hobiger, Valerio Poggi, Donat Fah, Alexandru Marmureanu, Carmen Cioflan	S01-P-17		
<b>Seismic Activity in the Central Tottori prefecture, Japan, with an M6.6 earthquake on October 21, 2016 analyzed by the Matched Filter Method</b> <u>Shiro Ohmi</u>	S01-P-18		

## S02. Anthropogenic seismicity

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Session:	<b>S02-1</b>
Session title:	World overview of anthropogenic seismicity I
Type:	Oral
Date:	Monday, July 31, 2017
Time:	08:30 - 10:00
Room:	Room 403
Chairs:	Stanislaw Lasocki (Institute of Geophysics, Polish Academy of Sciences) Pankow Kristine (University of Utah)

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Time	Title	Program No.
08:30	<b>Insights into faults, crustal permeability, state of stress and earthquake physics from induced earthquakes in Oklahoma and southern Kansas</b> <u>William Ellsworth</u> , Gregory Beroza, Yihe Huang, Cornelius Langenbruch, Martin Schoenball, Rall Walsh, Matthew Weingarten, Nana Yoshimitsu, Mark D. Zoback	S02-1-01 invited

09:00	<b>Trigger effects in the development of induced seismicity and the influence of human being over the natural seismicity of Kuzbass and Baikal regions of Russia</b> <u>Victor Seleznev</u> , Aleksey Bryksin, Aleksey Emanov, Aleksandr Emanov, Ekaterina Leskova, Aleksandr Fateev	S02-1-02
09:15	<b>Source parameters of the 2014 M5.5 Orkney earthquake sequence, South Africa, estimated by using near-field underground seismic arrays in gold mines</b> <u>Kazutoshi Imanishi</u> , Hiroshi Ogasawara, Yasuo Yabe, Shigeki Horiuchi, Makoto Okubo, Osamu Murakami	S02-1-03
09:30	<b>State of the art in 3D reflection seismic interpretation: New insights into a complex structural architecture in the vicinity of Orkney M5.5 event, South Africa</b> <u>Musa Manzi</u> , Hiroyuki Ogasawara, Raymond Durrheim, Hiroshi Ogasawara, Tullis Onstott, Artur Cichowicz	S02-1-04
09:45	<b>Rupture Process of the 2014 Orkney Earthquake, South Africa</b> <u>Makoto Okubo</u> , Artur Cichowicz, Hiroshi Ogasawara, Osamu Murakami, Shigeki Horiuchi	S02-1-05

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Session: **S02-2**  
 Session title: World overview of anthropogenic seismicity II  
 Type: Oral  
 Date: Monday, July 31, 2017  
 Time: 10:30 - 12:00  
 Room: Room 403  
 Chairs: Carlos Alberto Vargas Jimenez (Universidad Nacional de Colombia)  
 William L. Ellsworth (Stanford University)

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Time	Title	Program No.
10:30	<b>Reservoir-Triggered Seismicity in Brazil: characteristics and new cases</b> <u>Lucas Barros</u> , Marcelo Assumpcao, Juraci Carvalho, Luiz Ribotta	S02-2-01
10:45	<b>Hydrocarbon induced seismicity in Groningen, the Netherlands</b> <u>Bernard Dost</u> , Elmer Ruigrok, Jesper Spetzler	S02-2-02
11:00	<b>Integrated Petrographic, Geomechanical and Seismological studies of rockmass behaviour during the final phase of ore extraction at Cooke 4 shaft in South Africa</b> <u>Siyanda Mngadi</u> , Raymond Durrheim, Halil Yilmaz, Musa Manzi, Thabang Kgarume, Jan Kuijpers, Tony Ward, Dave Roberts, Makoto Naoi, Hiroshi Snr Ogasawara, Akimasa Ishida, SATREPS	S02-2-03 invited

11:15	<b>Very small repeating earthquakes on a geological fault at 1-km depth in a gold mine in South Africa</b> <u>Makoto Naoi</u> , Junya Yamaguchi, Masao Nakatani, Hirokazu Moriya, Toshihiro Igarashi, Thabang Kgarume, Osamu Murakami, Thabang Masakale, Yasuo Yabe, Kenshiro Otsuki, Hironori Kawakata, Tsuyoshi Ishida, Luiz Ribeiro, Anthony Ward, Raymond Durrheim, Hiroshi Ogasawara	S02-2-04
11:30	<b>Using empirical relationships to predict PPV for surface explosions</b> <u>Michelle Grobbelaar</u>	S02-2-05

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Session: **S02-3**  
 Session title: Studies of seismicity at Koyna, India  
 Type: Oral  
 Date: Tuesday, August 1, 2017  
 Time: 08:30 - 10:00  
 Room: Room 403  
 Chairs: Hiroshi Ogasawara (Ritsumeikan University)  
 Beata Orlecka-Sikora (Institute of Geophysics, Polish Academy of Sciences)

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Time	Title	Program No.
08:30	<b>Artificial Water Reservoir Triggered Earthquakes at Koyna, India</b> <u>Harsh K Gupta</u>	S02-3-01 invited
09:00	<b>Scientific deep drilling investigations to probe reservoir triggered seismicity in the Koyna seismogenic zone, western India</b> <u>Sukanta Roy</u> , Brijesh Bansal, Vyasulu Akkiraju, Surajit Misra, Deepjyoti Goswami, Nagaraju Podugu, Satrughna Mishra, Pinki Hazarika, Amrita Yadav, Sanjay Tiwari, Harsh Gupta, Shailesh Nayak	S02-3-02 invited
09:15	<b>Crustal Configuration beneath Koyna-Warna Seismicity Region, Western India</b> <u>Vm Tiwari</u> , S Mishra, CP Dubey	S02-3-03 invited
09:30	<b>Electrical image of Koyna-Warna seismic zone, India from large scale magnetotelluric studies</b> <u>Prasanta Patro</u> , Ujjal Borah, Kashi Raju, K. Chinna Reddy, Narendra Babu	S02-3-04
09:45	<b>The seasonal variation regime of induced seismicity in the Koyna-Warna region, western India</b> <u>Kusumita Arora</u> , Rajender Chadha, Vladimir Smirnov, Srinagesh Davuluri, Alexander Ponomarev, I.M. Kartashov	S02-3-05

Session: **S02-4**  
 Session title: Studies of seismicity at Koyna, India and other holistic approach projects  
 Type: Oral  
 Date: Tuesday, August 1, 2017  
 Time: 10:30 - 12:00  
 Room: Room 403  
 Chairs: Harsh Gupta (Geological Society of India)  
 Torsten Dahm (GFZ German Research Centre For Geosciences)

Session: **S02-5**  
 Session title: New directions in anthropogenic seismicity studies I  
 Type: Oral  
 Date: Tuesday, August 1, 2017  
 Time: 13:30 - 15:00  
 Room: Room 403  
 Chairs: James Jiro Mori (Disaster Prevention Research Institute, Kyoto University)  
 Alexey A. Malovichko (Geophysical Survey of the Russian Academy of Sciences)

Time	Title	Program No.
10:30	<b>Borehole seismological studies at Koyna-Warna: A unique example of the study of Reservoir Triggered Seismicity (RTS)</b> <u>Satyanarayana HVS</u> , Shashidhar D, Mallika K, Harsh Kumar Gupta, Purnachandra Rao N, Mahato CR, Maity BS, Narsinga Rao D, Sarma ANS, Ajay B	S02-4-01 invited
10:45	<b>Seismotectonics of the Koyna region, India: based on focal mechanism solutions using borehole and surface seismological networks</b> <u>Dodla Shashidhar</u> , K. Mallika, H.V.S. Satyanarayana, C.R. Mahato, B.S. Maity, N. Purnachandra Rao, Harsh Gupta	S02-4-02 invited
11:00	<b>An overview of an ICDP project to drill into seismogenic zones of M2.0 – M5.5 earthquakes in deep South African gold mines (DSeis)</b> <u>Hiroshi Ogasawara</u> , Yasuo Yabe, Takatoshi Ito, Gerrie Van Aswegen, Artur Cichowicz, Michelle Grobbelaar, Ray Durrheim, Martin Ziegler, Margaret Boettcher, Tullis C Onstott, DSeis Team	S02-4-03
11:15	<b>Developing an Induced Seismic Mitigation Plan for the Proposed Utah Frontier Observatory for Research in Geothermal Energy (FORGE)</b> <u>Kristine Pankow</u> , Stephen Potter, Hao Zhang, Fan-Chi Lin, Joseph Moore	S02-4-04
11:30	<b>Mapping microseismicity induced by hydrofrac experiments in Europe</b> <u>Torsten Dahm</u> , Simone Cesca, Jose Angel Lopez Comino, Sebastian Heimann, Claus Milkereit, Arno Zang	S02-4-05

Time	Title	Program No.
13:30	<b>IS-EPOS e- platform of EPOS Thematic Core Service ANTHROPOGENIC HAZARDS – a virtual laboratory for collaborative research experimentation</b> <u>Beata Orlecka-Sikora</u> , Stanislaw Lasocki, Konstantinos Leptokaropoulos, Grzegorz Kwiatek, Jean-Robert Grasso, Jean Schmittbuhl, Alexander Garcia, Tomasz Szeplieniec, Mariusz Sterzel, Grzegorz Lizurek, Karolina Chodzinska	S02-5-01
13:45	<b>Picking vs Waveform based detection and location methods for induced seismicity monitoring</b> <u>Francesco Grigoli</u> , Maren Boese, Toni Kraft, Bernd Weber, Stefam Wiemer, John Clinton	S02-5-02
14:00	<b>The Spatio-Temporal Variation of Seismicity in the South African Gold Mining Region</b> <u>Vunganai Midzi</u> , Brian Zulu, Denver Birch, Andrzej Kijko, Ansie Smit	S02-5-03
14:15	<b>Seismic hazard assessment for induced seismicity in the Middle Urals, Russia</b> <u>Ruslan Diagilev</u>	S02-5-04
14:30	<b>Identifying pathways for gas and fluid migration caused by fracking processes, with the use of criteria defined in equivalent dimension phase spaces</b> <u>Stanislaw Lasocki</u> , Beata Orlecka-Sikora, Konstantinos Leptokaropoulos, Grzegorz Kwiatek, Patricia Martinez-Garzon, Paolo Capuano, Simone Cesca	S02-5-05

Session: **S02-6**  
 Session title: New directions in anthropogenic seismicity studies II  
 Type: Oral  
 Date: Tuesday, August 1, 2017  
 Time: 16:30 - 18:00  
 Room: Room 403  
 Chairs: Stanislaw Lasocki (Institute of Geophysics, Polish Academy of Sciences)  
 Sukanta Roy (ESSO-Ministry of Earth Sciences, Govt. of India)

Time	Title	Program No.
16:30	<b>Discrimination of induced seismicity component in the seismicity of Sakhalin offshore hydrocarbon fields</b> <u>Sergey Turuntaev</u> , Alexey Konovalov, Andrey Stepnov, Elena Slinkova, Anna Gubanova	S02-6-01
16:45	<b>The Results of the Local Seismic Monitoring in the Underground Baksan Neutrino Observatory</b> <u>Alexey Malovichko</u> , Denis Shulakov, Zalim Dudarov, Spartak Dolov	S02-6-02
17:00	<b>Experiment to Trigger a Moderate-sized Earthquake</b> <u>James Mori</u>	S02-6-03
17:15	<b>Possibilities of seismic monitoring in control of equipment and constructions of hydro-electric power plants condition</b> <u>Victor Seleznev</u> , Aleksei Liseikin	S02-6-04

Session: **S02-P**  
 Type: Poster  
 Date: Tuesday, August 1/ Wednesday, August 2, 2017  
 Time: 15:30 - 16:30  
 Room: Event Hall

Title	Program No.
<b>Spatio-temporal variation in seismicity due to periodically alternating roles of reservoirs in the Koyna-Warna RTS zone, India</b> <u>Amrita Yadav</u> , Kalpna Gahalaut, N.Purnachandra Rao	S02-P-01
<b>3D Poroelastic Modelling of Reservoir Triggered Seismicity (RTS) in Koyna Region, Western India</b> <u>Pinki Hazarika</u> , Amrita Yadav, Sukanta Roy	S02-P-02
<b>Rock strength variations in an active seismogenic zone: evidences from scientific drilling in Koyna, western India</b> <u>Deepjyoti Goswami</u> , Vyasulu V. Akkiraju, Surajit Misra, Sukanta Roy, Amalendu Sinha, Harsh Gupta, Brijesh K. Bansal, Shailesh Nayak	S02-P-03
<b>Deformations in rocks in the Koyna seismogenic zone, western India obtained through scientific deep drilling</b> <u>Surajit Misra</u> , Sukanta Roy	S02-P-04

**Geological and velocity structures of the Orkney M5.5 fault, South Africa**  
Hiroyuki Ogasawara, Musa Manzi, Ray Durrheim, Hiroshi Ogasawara, Artur Cichowicz, Akimasa Ishida, Tatsunari Yasutomi

S02-P-05

**Searching significant displacement zones of a M5.5 earthquake fault by forward and inversion analyses of strainmeter data at depth at a very close distance**  
Tatsunari Yasutomi, Hiroshi Ogasawara, Akimasa Ishida, Hiroyuki Ogasawara, Durrheim Raymond, Alex Milev, Makoto Okubo, Teruhiro Yamaguchi, James Mori

S02-P-06

**An integrated estimation of the stress field in seismogenic zones in South African gold mines**  
Akimasa Ishida, Hiroshi Ogasawara, Yasuo Yabe, Akio Funato, Takatoshi Ito, Shuhei Abe, Raymond Durrheim, Siyanda Mngadi, Gerhard Hofmann, Dave Roberts, Harumi Kato, Alexander Milev, Makoto Naoi

S02-P-07

**Experimental measurements of seismic velocities on core samples and their dependence on mineralogy and stress, Witwatersrand Basin (South Africa)**  
Nomqhele Nkosi, Musa Manzi

S02-P-08

**Estimate of the stress state in a close proximity to an earthquake source in a South African deep gold mine**  
Shuhei Abe, Yasuo Yabe, Takatoshi Ito, Masao Nakatani, Gerhard Hofmann, Hiroshi Ogasawara

S02-P-09

**Evaluation of the induced risks caused by shale gas exploration and exploitation**  
 Paolo Capuano, Beata Orlecka-Sikora, Stanislaw Lasocki, Simone Cesca, Andrew Gunning, Janusz Jaroslasky, Alexander Garcia-Aristizabal, Rachel Westwood, Paolo Gasparini

S02-P-10

**Induced seismicity in the region of the geothermal power plant at Insheim (central Upper Rhine Graben, SW Germany)**  
 Andrea Bruestle, Margarete Pilger, Thomas Plenefisch, Ulrich Wegler, Bernd Schmidt

S02-P-11

**Analysis of static stress transfer in the 2013 Valencia Gulf (NE Spain) seismic sequence**  
 Lluís Saló, Tanit Frontera, Xavier Goula, Lluís Pujades, Alberto Ledesma, Josep Batllo, Jose Antonio Jara

S02-P-12

**Spectral Characteristics of the 2006 Quarry Blasts in the Tehran Region based on the TDMMO Network**  
Jamileh Vasheghani Farahani, Hiroe Miyake

S02-P-13

**Analysis of ambient seismic noise levels for the SATREPS stations and their technical aspects**  
Jorge Real, Vladimir Kostoglodov, Allen Husker

S02-P-14

**The features of deep seismic structure of the area of junction of the Eurasian, Okhotsk and North American plates in Eastern Russia**  
 Victor [Seleznev](#), Aleksei Liseikin, Victor Solovyev, Aleksandr Salnikov, Sergey Shibaev

S02-P-15

**A physical seismic modeling study of multi-azimuth seismic refraction for a horizontal transverse isotropic medium**  
 Young-Fo [Chang](#), Cheng-Wei Tseng, Jia-Wei Liu, Chao-Ming Lin

S02-P-16

14:30 **Modeling waveform anomaly across central Japan with scattered seismic waves as inferred from high-frequency simulations**  
[Simanchal Padhy](#), Takashi Furumura

S03-1-05

14:45 **Elastic vs. Acoustic Radiative Transfer Theory - Estimation of Seismic Attenuation Parameters in Germany**  
 Peter J. Gaebler, Tom Eulendorf, [Ulrich Wegler](#)

S03-1-06

## S03. Imaging of heterogeneities in the Earth with seismic scattered waves and ambient noise

Session: **S03-1**

Session title: Imaging of heterogeneities in the Earth with seismic scattered waves and ambient noise I

Type: Oral

Date: Tuesday, August 1, 2017

Time: 13:30 - 15:00

Room: Room 401

Chairs: [Ulrich Wegler](#) (Friedrich-Schiller-Universitat Jena)  
[Kentaro Emoto](#) (Tohoku University)

Time	Title	Program No.
13:30	<b>Envelopes of scalar plane wavelets propagating through 2-D random media with power-law spectra</b> <a href="#">Yuji Tomiyama</a> , <a href="#">Jun Kawahara</a> , <a href="#">Kentaro Emoto</a>	S03-1-01
13:45	<b>Statistical characteristics of scattered waves in random media based on 3D finite difference simulations</b> <a href="#">Kentaro Emoto</a> , <a href="#">Haruo Sato</a>	S03-1-02
14:00	<b>Propagation of a Scalar Wavelet through von Karman-type Random Media</b> <a href="#">Haruo Sato</a> , <a href="#">Kentaro Emoto</a>	S03-1-03
14:15	<b>Role of localized heterogeneities on distortion of the apparent radiation patters: aftershock sequence of the 2016 Kumamoto earthquake</b> <a href="#">Shunsuke Takemura</a> , <a href="#">Tatsuhiko Saito</a> , <a href="#">Hisahiko Kubo</a> , <a href="#">Katsuhiko Shiomi</a>	S03-1-04

Session: **S03-2**

Session title: Imaging of heterogeneities in the Earth with seismic scattered waves and ambient noise II

Type: Oral

Date: Tuesday, August 1, 2017

Time: 16:30 - 18:00

Room: Room 401

Chairs: [Nozomu Takeuchi](#) (University of Tokyo)  
[Tsutomu Takahashi](#) (Japan Agency for Marine-Earth Science and Technology)

Time	Title	Program No.
16:30	<b>Intrinsic and Scattering Seismic Attenuation in Eastern Iran</b> <a href="#">Majid Mahood</a>	S03-2-01
16:45	<b>Trans-dimensional imaging of scattering and intrinsic Q structures</b> <a href="#">Tsutomu Takahashi</a>	S03-2-02
17:00	<b>Scattering and attenuation structures beneath volcanoes inferred from envelope widths of volcano-seismic events</b> <a href="#">Hiroyuki Kumagai</a> , <a href="#">Cristian Lopez</a> , <a href="#">John Londono</a> , <a href="#">Yuta Maeda</a> , <a href="#">Rudy Lacson</a>	S03-2-03
17:15	<b>Intrinsic Attenuations in the Oceanic Lithosphere and Asthenosphere Constrained by Seismogram Envelopes</b> <a href="#">Nozomu Takeuchi</a> , <a href="#">NOMan Project Team</a>	S03-2-04
17:30	<b>3D Diffraction Imaging of Fault Zones</b> <a href="#">Vladimir Cheverda</a> , <a href="#">Galina Reshetova</a> , <a href="#">Maksim Protasov</a>	S03-2-05
17:45	<b>Joint inversion for shallow crustal discontinuities from high-frequency waveforms of microearthquakes</b> <a href="#">Pavla Hrubcova</a> , <a href="#">Vaclav Vavrycuk</a>	S03-2-06

Session: **S03-3**

Session title: Imaging of heterogeneities in the Earth with seismic scattered waves and ambient noise III

Type: Oral

Date: Wednesday, August 2, 2017

Time: 08:30 - 10:00

Room: Room 401

Chairs: Kiwamu Nishida (University of Tokyo)  
Ryota Takagi (Tohoku University)

Time	Title	Program No.
08:30	<b>Bias in velocity measurements from ambient noise due to anisotropic source distributions</b> <u>Olafur Gudmundsson</u> , Hamzeh Sadeghisorkhani, Roland Roberts, Ari Tryggvason	S03-3-01
08:45	<b>Approximate vector sensitivity kernels of coda waves to seismic velocity changes based on the scalar single isotropic scattering model</b> <u>Hisashi Nakahara</u> , Kentaro Emoto	S03-3-02
09:00	<b>Land-atmosphere coupling and source of low-frequency seismic noise from the analysis of co-located barometers and seismometers</b> <u>Toshiro Tanimoto</u> , Jiong Wang, Anne Valocin	S03-3-03
09:15	<b>Dominant source locations of secondary microseisms in Japan estimated by Hi-net data</b> <u>Ryota Takagi</u> , Kiwamu Nishida	S03-3-04
09:30	<b>Comparison of microseismic Rayleigh and Love waves sources around Scandinavia</b> Hamzeh Sadeghisorkhani, <u>Olafur Gudmundsson</u> , Roland Roberts, Ari Tryggvason	S03-3-05
09:45	<b>Global source location of P-wave microseisms using Hi-net data from 2005 to 2011</b> <u>Kiwamu Nishida</u> , Ryota Takagi	S03-3-06

Session: **S03-4**

Session title: Imaging of heterogeneities in the Earth with seismic scattered waves and ambient noise IV

Type: Oral

Date: Wednesday, August 2, 2017

Time: 10:30 - 12:00

Room: Room 401

Chairs: Shingo Watada (University of Tokyo)  
Hisashi Nakahara (Tohoku University)

Time	Title	Program No.
10:30	<b>Quantifying the body-wave information retrieved from global earthquake coda correlation</b> <u>Hsin-Hua Huang</u> , Victor Tsai, Fan-Chi Lin, Weitao Wang, Julien Chaput	S03-4-01
10:45	<b>Illuminating the Cascadia forearc and Mendocino Triple Junction system from seismic interferometry</b> <u>Benoit Tauzin</u> , Thanh Son Pham, Hrvoje Tkalčić	S03-4-02

11:00 **Retrieval of tsunamis by the interferometry of deep ocean pressure records**  
Shingo Watada, Lisa Kaneko, Yuchen Wang, Kenji Satake

S03-4-03

11:15 **HV Spectral Ratio (HVSr) for preliminary seismic characterization of Sun Pyramid in Teotihuacan, Mexico**

S03-4-04

Jose Pina-Flores, Shinichi Matsushima, Francisco J Sanchez-Sesma, Juan C Molina-Villegas, Jesus Morales-Valdez, Mario A Saenz-Castillo, Cesar A Sierra-Alvarez, Hiroshi Kawase

11:30 **Crustal Structure of South Yogyakarta Area Revealed By Spatial Auto Correlation and Ambient Noise Tomography**  
Wiwit Suryanto, Jean-Philippe Metaxian, Ade Anggraini, Fitra Irwandhono, Francois Beauducel

S03-4-05

11:45 **Surface wave tomography of Java Island from ambient seismic noise**  
Sri Widiyantoro, Zulfakriza Zulhan, Agustya Martha, Phil Cummins, Erdinc Saygin, Tedi Yudistira, Andri Nugraha, Bayu Pranata, Shindy Rosalia

S03-4-06

Session: **S03-5**

Session title: Imaging of heterogeneities in the Earth with seismic scattered waves and ambient noise V

Type: Oral

Date: Wednesday, August 2, 2017

Time: 13:30 - 15:00

Room: Room 401

Chairs: Hisashi Nakahara (Tohoku University)  
Kaoru Sawazaki (National Research Institute for Earth Science and Disaster Resilience)

Time	Title	Program No.
13:30	<b>Depth dependence of stress sensitivity of seismic velocity changes as inferred from noise correlation analyses at Izu-Oshima volcano, Japan</b> <u>Tomoya Takano</u> , Takeshi Nishimura, Hisashi Nakahara	S03-5-01
13:45	<b>Observation of coseismic and postseismic velocity changes for deep borehole seismic stations in the Kanto area</b> <u>Manuel Hobiger</u> , Ulrich Wegler, Katsuhiko Shiomi, Hisashi Nakahara, Kazuo Yoshimoto	S03-5-02
14:00	<b>Monitoring volcanic and geothermal fields using seismic noise: the case study of the Las Tres Virgenes geothermal field (Mexico)</b> <u>Marco Calo</u> , Erik Alberto Lopez Mazariegos, Valente Ramos Avila, Javier Francisco Lermo Samaniego	S03-5-03
14:15	<b>Anisotropic S-wave velocity change in the shallow subsurface associated with the 2016 Kumamoto earthquakes</b> <u>Kaoru Sawazaki</u> , Tatsuhiko Saito, Tomotake Ueno, Katsuhiko Shiomi	S03-5-04



14:30	<b>Spatio-temporal changes of seismic scattering properties associated with the dike intrusion on 15 August 2015 at Sakurajima volcano, Japan, detected by seismic interferometry</b> <u>Takashi Hirose</u> , Hisashi Nakahara, Takeshi Nishimura	S03-5-05	<b>Temporal change of subsurface structure near Mt. Aso inferred from seismic interferometry using V-net vertical array data</b> <u>Yuta Mizutani</u> , Kiwamu Nishida, Yosuke Aoki	S03-P-09
14:45	<b>Characterization and monitoring of ambient vibrations of a rock slope close to collapse</b> <u>Jan Burjanek</u> , Donat Faeh	S03-5-06	<b>Seismic velocity variation within the Tatun Volcano Group, Northern Taiwan, from ambient noise analysis</b> <u>Ya-Chuan Lai</u> , Cheng-Horng Lin, Hsiao-Fen Lee, TVO Team	S03-P-10
			<b>Study of repeating events in the Jalisco subduction zone, Mexico</b> <u>Guillermo Gonzalez</u> , Allen Husker, William Frank, Leticia Avila	S03-P-11
			<b>The study of the high-frequency microseismic noise at the Russian Platform</b> <u>Alina Besedina</u> , Ivan Batukhtin, Alexey Ostapchuk	S03-P-12

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Session: **S03-P**  
Type: Poster  
Date: Tuesday, August 1/ Wednesday, August 2, 2017  
Time: 15:30 - 16:30  
Room: Shinsho Hall

Title	Program No.
<b>Separation of intrinsic attenuation and scattering loss for the contiguous US</b> <u>Tom Eulenfeld</u> , <u>Ulrich Wegler</u>	S03-P-01
<b>Spatial variations of intrinsic absorption and scattering loss in Taiwan based on a Multiple Lapse Time Window Analysis</b> <u>Kevin Gillet</u> , Ludovic Margerin, Shu-Huei Hung, Marie Calvet	S03-P-02
<b>Significant anomalies in high-frequency seismograms for intra-slab earthquakes observed in Kanto area, Japan: Importance of mode-conversion scattering</b> <u>Nozomi Kanaya</u> , Takuto Maeda, Kazushige Obara, Akiko Takeo	S03-P-03
<b>Amplitude fluctuation of seismic waves in the crust</b> <u>Kazuo Yoshimoto</u> , Shunsuke Takemura, Manabu Kobayashi	S03-P-04
<b>Shallow S-Wave Velocity Structures of the Northern Taichung Area, Taiwan, Using Microtremor Array Data</b> <u>Huey-Chu Huang</u> , Tien-Han Shih, Cheng-Feng Wu	S03-P-05
<b>Comparison three applications of microtremor analysis for investigating shallow S-wave velocity structure in the Western plain of Taiwan</b> <u>Chun-Te Chen</u> , Kuo-Liang Wen	S03-P-06
<b>Elastic Velocity Change associated with the 2016 Kumamoto Earthquakes, Japan</b> <u>Tomotake Ueno</u> , Tatsuhiko Saito, Kaoru Sawazaki, Katsuhiko Shiomi	S03-P-07
<b>A temporal and spatial change in seismic velocity caused by the 2016 Kumamoto earthquake using cross-correlations of ambient seismic noise</b> <u>Hiro Nimiya</u> , Tatsunori Ikeda, Takeshi Tsuji	S03-P-08

## S04. Historical and macroseismic studies of earthquakes

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Session: **S04-1**  
Session title: Historical and macroseismic studies of earthquakes I  
Type: Oral  
Date: Thursday, August 3, 2017  
Time: 08:30 - 10:00  
Room: Room 403  
Chairs: Toshitaka Baba (Tokushima University)  
Paola Albini (Istituto Nazionale di Geofisica e Vulcanologia)

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Time	Title	Program No.
08:30	<b>Revision of the world's best-known recurrence pattern of historical subduction earthquakes along the Nankai trough off southwest Japan and their relationship with large inland earthquakes</b> <u>Katsuhiko Ishibashi</u>	S04-1-01 invited
09:00	<b>A possible tsunami caused by a submarine landslide in 1512 at the Nankai trough, Japan</b> <u>Toshitaka Baba</u> , Taiki Okada, Juichiro Ashi, Toshiya Kanamatsu	S04-1-02
09:15	<b>Hot Spring Anomalies Observed in Kumamoto Prefecture Associated with the 1946 Nankai Earthquake</b> <u>Yasuyuki Kano</u>	S04-1-03
09:30	<b>Earthquakes before 6 April 1667 in southern Dalmatia and Montenegro</b> <u>Paola Albini</u> , Andrea Rovida	S04-1-04

09:45	<b>The 1895 Ljubljana earthquake: can the intensity data points discriminate which one of the nearby faults was the causative one?</b> <u>Lara Tiberi</u> , Giovanni Costa, Petra Jamsek Rupnik, Ina Cecic, Peter Suhadolc	S04-1-05	14:15	<b>THE 7TH JULY, 1923, CANAL DE BERDUN EARTHQUAKE, IN THE PYRENEES. ITS MACROSEISMIC FIELD FROM CONTEMPORARY RECORDS</b> <u>Josep Batllo</u> , Jose Manuel Martinez Solares	S04-3-03
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Session: **S04-2**  
 Session title: Historical and macroseismic studies of earthquakes II  
 Type: Oral  
 Date: Thursday, August 3, 2017  
 Time: 10:30 - 12:00  
 Room: Room 403  
 Chairs: Ritsuko S. Matsu'ura (Association for the Development of Earthquake Prediction)  
 Kenji Satake (University of Tokyo)

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Time	Title	Program No.
10:30	<b>The Innsbruck earthquake of 22nd December 1689</b> <u>Christa Hammerl</u>	S04-2-01 invited
11:00	<b>A New Approach to Comprehend Historical Tsunami Source</b> <u>Ritsuko S. Matsu'ura</u> , Yuta Mitsuhashi, Yukitoshi Fukahata	S04-2-02
11:15	<b>Is the survival rate a clue to estimate the location of epicenter of historical earthquakes?</b> <u>Taku Komatsubara</u>	S04-2-03
11:30	<b>Value of macroseismic information in earthquake studies in XX century: two case studies</b> <u>Ruben Tatevossian</u> , Nina Mokrushina	S04-2-04
11:45	<b>From historical seismology to seismogenic source models, 20 years on: results and challenges</b> <u>Gianluca Valensise</u> , Pierfrancesco Burrato, Umberto Fracassi, Paola Vannoli	S04-2-05

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Session: **S04-3**  
 Session title: Historical and macroseismic studies of earthquakes III  
 Type: Oral  
 Date: Thursday, August 3, 2017  
 Time: 13:30 - 15:00  
 Room: Room 403  
 Chairs: Marcelo Assumpcao (University of Sao Paulo)  
 Kenji Satake (University of Tokyo)

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Time	Title	Program No.
13:30	<b>A STRUCTURED AND HIERARCHICAL DATABASE OF MEXICAN HISTORICAL EARTHQUAKES: 1469 TO 1912</b> <u>Gerardo Suarez</u> , Carlos Chico, Daniel Ruiz	S04-3-01 invited
14:00	<b>Dynamic Rupture Modeling of Historic, Pre-Instrumental Earthquakes on the San Andreas and San Jacinto Faults, Southern California</b> <u>Julian Lozos</u>	S04-3-02

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14:30	<b>The newly discovered 1885 earthquake in the French Guiana - Brazil border, 6.0 mb, the largest historical mid-plate event in South America</b> <u>Marcelo Assumpcao</u> , Alberto Veloso	S04-3-04
14:45	<b>An intensity database for earthquakes on the Highveld of South Africa from 1840 to 1950</b> <u>Nicolette S. Flint</u>	S04-3-05

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Session: **S04-4**  
 Session title: Historical and macroseismic studies of earthquakes IV  
 Type: Oral  
 Date: Thursday, August 3, 2017  
 Time: 16:30 - 18:00  
 Room: Room 403  
 Chairs: Takeo Ishibe (Association for the Development of Earthquake Prediction)  
 Paola Albini (Istituto Nazionale di Geofisica e Vulcanologia)

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Time	Title	Program No.
16:30	<b>Methodology to Determine the Parameters of Historical Earthquakes in China</b> <u>Jian Wang</u> , Guoliang Lin, Zhe Zhang	S04-4-01 invited
17:00	<b>Document database for historical earthquakes around Tokyo area</b> <u>Kenji Satake</u> , Jun Muragishi, Akihito Nishiyama, Masaharu Ebara, Toshifumi Yata, Takeo Ishibe	S04-4-02
17:15	<b>Estimation of source regions of large earthquakes from felt reports of JMA seismic intensity database - Evaluation of applicability to historical large earthquakes -</b> <u>Takeo Ishibe</u> , Ritsuko S. Matsu'ura, Koji Iwasa, Ryoichi Nakamura, Kenji Satake	S04-4-03
17:30	<b>Historical Earthquake of Georgia</b> <u>Nino Tsereteli</u> , Otar Varazanashvili	S04-4-04
17:45	<b>How to Cope with Earthquakes in Himalaya?</b> <u>Harsh K Gupta</u>	S04-4-05

Session: **S04-P**  
 Type: Poster  
 Date: Thursday, August 3/ Friday, August 4, 2017  
 Time: 15:30 - 16:30 / 15:00 - 16:00  
 Room: Event Hall

Title	Program No.
<b>Development of historical earthquake and volcanic activity database using historical diaries</b> <u>Akihito Nishiyama</u> , Masaharu Ebara, Akihiko Katagiri, Yusuke Oishi, Kenji Satake	S04-P-01
<b>Source area and magnitude of an aftershock following the 1854 Ansei-Nankai earthquake</b> <u>Haruo Horikawa</u> , Ichiro Nakanishi	S04-P-02
<b>What age distributions of stone lanterns tell about historical earthquakes?: case studies at three sites in Japan</b> <u>Mamoru Kato</u> , Jun Hioka	S04-P-03
<b>The Japan GIS Database of the Historical Disaster using research data of Archeological excavation, Geological survey and Historical documents</b> <u>Taisuke Murata</u> , Nobuhiko Koike	S04-P-04
<b>Numerical reconstruction of the source rupture and strong ground motions of the 1935 Hsinchu-Taichung Earthquake, Taiwan from historical triangulation data</b> <u>Ming-Hsuan Yen</u> , Shiann-Jong Lee, Kuo-Fong Ma	S04-P-05
<b>The large Hyuga-nada earthquake on June 30th, 1498 is a fake earthquake –Examination of the damage descriptions in Kyushu in the war chronicle "Kyusyu-gunki"–</b> <u>Tomoya Harada</u> , Akihito Nishiyama, Kenji Satake, Takashi Furumura	S04-P-06
<b>Revisiting source parameters of the 1906 Meishan, Taiwan earthquake from full-waveform measurements of historical records</b> <u>Yiwun Liao</u> , Ming-Che Hsieh, Kuo-Fong Ma	S04-P-07

## S05. Preservation and usage of analog seismogram archives

Session: **S05-1**  
 Session title: Preservation and usage of analog seismogram archives I  
 Type: Oral  
 Date: Friday, August 4, 2017  
 Time: 08:30 - 10:00  
 Room: Room 403  
 Chairs: Emile Okal (Northwestern University)  
 Paul Richards (Columbia University, New York)

Time	Title	Program No.
08:30	<b>On guidelines for preservation and usage of analog seismogram archives</b> <u>Paul Richards</u>	S05-1-01 invited
08:45	<b>Twenty-five years of activity of the ESC Working groups devoted to the preservation of the tangible and intangible heritage of Euro-Mediterranean seismology</b> <u>Graziano Ferrari</u>	S05-1-02 invited
09:00	<b>The contribution of the Sismos project to the preservation, dissemination and scientific usage of the material heritage of instrumental seismology of Euro-Mediterranean area</b> <u>Graziano Ferrari</u>	S05-1-03 invited
09:15	<b>A brief introduction to the analog seismograms storage in China</b> <u>Ruifeng Liu</u> , Leiyu Mou	S05-1-04 invited
09:30	<b>Analog Seismogram Archives at Earthquake Research Institute, the University of Tokyo</b> <u>Kenji Satake</u> , Hiroshi Tsuruoka, Satoko Murotani	S05-1-05 invited
09:45	<b>The current status of archives of the old analog seismograms in Japan, and some examples of their preliminary contribution to seismology</b> <u>Ritsuko S. Matsu'ura</u> , Norihito Umino, Yoshiaki Tamura, Yoshihisa Iio, Minoru Kasahara	S05-1-06 invited

Session: **S05-2**  
 Session title: Preservation and usage of analog seismogram archives II  
 Type: Oral  
 Date: Friday, August 4, 2017  
 Time: 10:30 - 12:00  
 Room: Room 403  
 Chairs: Paul Richards (Columbia University, New York)  
 Graziano Ferrari (National Institute of Geophysics and Volcanology)

Time	Title	Program No.
10:30	<b>Historical seismograms: Preservation efforts for an endangered species</b> <u>Emile Okal</u>	S05-2-01 invited
10:45	<b>Modern methods applied to historical seismograms: Perspective and examples</b> <u>Emile Okal</u>	S05-2-02 invited
11:00	<b>Instrumental polarities of the most important historical seismographs of the Euro-Mediterranean area</b> <u>Graziano Ferrari</u> , Barbara Palombo, Rodolfo Console, Paola Vannoli	S05-2-03
11:15	<b>PRESERVING ANALOGUE SEISMOGRAMS OF REGIONAL NETWORKS AND OTHER DOCUMENTS. EXPERIENCE AT THE INSTITUT CARTOGRAFIC I GEOLOGIC DE CATALUNYA (ICGC)</b> <u>Josep Batllo</u> , Jose Antonio Jara, Judith Unamuno, Maria Teresa Merino	S05-2-04
11:30	<b>Observations of large earthquakes in the Mexican subduction zone over 110 years</b> <u>Vala Hjorleifsdottir</u> , Shri Krishna Singh, Bjorn Lund, Chen Ji	S05-2-05
11:45	<b>ANALYSIS OF THE ANALOG SEISMOGRAMS RECORDED DURING THE NOVEMBER 19, 1912 (M~7.0) ACAMBAY, CENTRAL MEXICO EARTHQUAKE: TOWARDS A FINITE SOURCE INVERSION</b> Raul Daniel Corona, <u>Miguel Angel Santoyo</u>	S05-2-06

Session: **S05-3**  
 Session title: Preservation and usage of analog seismogram archives --- Panel Discussion  
 Type: Oral  
 Date: Friday, August 4, 2017  
 Time: 13:30 - 15:00  
 Room: Room 403  
 Chairs: Paul Richards (Columbia University, New York)  
 Graziano Ferrari (National Institute of Geophysics and Volcanology)  
 Panelists: Paul Richards, Graziano Ferrari, Emile Okal, Ruifeng Liu, Kenji Satake, Ritsuko S. Matsu'ura, Vala Hjorleifson

Session: **S05-P**  
 Type: Poster  
 Date: Thursday, August 3/ Friday, August 4, 2017  
 Time: 15:30 - 16:30 / 15:00 - 16:00  
 Room: Event Hall

Title	Program No.
<b>Database of digitized data of analog seismic and tsunami records for historical earthquakes in Japan</b> <u>Satoko Murotani</u> , Kenji Satake, Hiroshi Tsuruoka, Hiroe Miyake, Toshiaki Sato, Tetsuo Hashimoto, Hiroo Kanamori, Masahiro Osako	S05-P-01
<b>HERP data retrieval system of JMA analog seismograms</b> <u>Mitsuko Furumura</u> , Koji Iwasa, Yasunori Suzuki, Tomotsugu Demachi, Takeo Ishibe, Ritsuko S. Matsu'ura	S05-P-02
<b>A trial application of analog seismograms of the Kanto-Tokai observation network for crustal observation to the detection of deep low frequency tremor</b> <u>Takanori Matsuzawa</u> , Tetsuya Takeda	S05-P-03
<b>Source parameters of the 1952 Pyeongyang, North Korea, earthquake</b> <u>Tae-Seob Kang</u> , Myung-Soon Jun	S05-P-04
<b>STUDY OF THE 7TH JULY, 1923, CANAL DE BERDUN EARTHQUAKE, IN THE PYRENEES FROM CONTEMPORARY SEISMOGRAMS AND BULLETINS</b> Rosa Martin, Daniel Stich, <u>Josep Batllo</u> , Ramon Macia, Jose Morales	S05-P-05
<b>ROMANIAN NETWORK OF ANALOG SEISMOGRAMS: CONTRIBUTION TO IMPROVE GLOBAL EARTHQUAKE CATALOGS</b> Daniel Nistor Paulescu, Eugen Oros, Mircea Radulian, <u>Elena Manea</u>	S05-P-06

## S06. Advancement in methodologies for CTBT monitoring

Session: **S06-1**  
 Session title: Advancement in methodologies for CTBT monitoring  
 Type: Oral  
 Date: Wednesday, August 2, 2017  
 Time: 16:30 - 18:00  
 Room: Room 401  
 Chairs: Tormod Kvaerna (NORSAR)  
 Michelle Grobbelaar (Council for Geoscience)

Time	Title	Program No.
16:30	<b>Trends in ground-based nuclear explosion monitoring research and development</b> <u>Michael Pasyanos</u> , Monica Maceira, Dale Anderson, Stephen Arrowsmith, Michael Begnaud, Philip Blom, Leslie Casey, Garrett Euler, Sean Ford, Michael Foxe, Jonathan MacCarthy	S06-1-01
16:45	<b>The ISC datasets for monitoring research</b> <u>Dmitry Storchak</u> , James Harris, Konstantinos Lentas	S06-1-02
17:00	<b>Synthetic seismograms of explosive sources calculated by the Earth Simulator</b> <u>Seiji Tsuboi</u> , Hiroyuki Matsumoto, Mikhail Rozhkov, Josh Stachnik	S06-1-03
17:15	<b>Model ensembles for estimation of seismic travel time and event location uncertainty</b> <u>Stephen Myers</u> , Nathan Simmons	S06-1-04
17:30	<b>On similarities and differences of signals measured by IMS stations from five DPRK underground tests</b> Dmitry Bobrov, Ivan Kitov, Mikhail Rozhkov, <u>Pierrick Mialle</u> , Peter Nielsen	S06-1-05 invited
17:45	<b>Source array analysis for accurate relative event location at the North Korea nuclear test site</b> Steven Gibbons, <u>Tormod Kvaerna</u> , Sven Peter Naesholm, Svein Mykkeltveit	S06-1-06

Session: **S06-P**  
 Type: Poster  
 Date: Tuesday, August 1/ Wednesday, August 2, 2017  
 Time: 15:30 - 16:30  
 Room: Event Hall

Title	Program No.
<b>Seismic wave analysis of North Korean nuclear tests using seismographic networks in Japan</b> <u>Kazunori Yoshizawa</u> , Ryo Narita	S06-P-01

**Long-range underwater acoustic propagation from controlled underwater sources received at IMS hydroacoustic stations**  
Tomoaki Yamada, Georgios Haralabus, Mario Zampolli, Kevin Heaney

S06-P-02

**The CTBTO Link to the ISC Database**  
Konstantinos Lentas, Dmitry Storchak, James Harris

S06-P-03

**Similarities and differences of a hydrogeological response to underground nuclear explosions and earthquakes**  
Evgeny Vinogradov, Ella Gorbunova, Alina Besedina

S06-P-04

## IASPEI Earthquake Hazard, Risk and Strong Ground Motion

## S07. Strong ground motions and Earthquake hazard and risk

Session: **S07-1**  
 Session title: Amplification of ground motions and GMPEs  
 Type: Oral  
 Date: Monday, July 31, 2017  
 Time: 08:30 - 10:00  
 Room: Main Hall  
 Chairs: John Clinton (ETH Zurich)  
 Masumi Yamada (Kyoto University)

Time	Title	Program No.
08:30	<b>Source parameters, path attenuation, and site effects from strong-motion recordings of the Wenchuan aftershocks (2008-2013) using nonparametric generalized inversion technique</b> <u>Yefei Ren</u> , Ruizhi Wen, Hongwei Wang, Dongwang Tao	S07-1-01
08:45	<b>Estimation of Source, Path and Site Effects in Hangay region Mongolia using a dense broadband seismic array</b> <u>Baigalimaa Ganbat</u> , Toshiaki Yokoi, Takumi Hayashida	S07-1-02
09:00	<b>Estimation of site amplification using ground motion records at strong motion stations in Turkey</b> <u>Hiroaki Yamanaka</u> , Ozgur Ozmen, Ulubey Ceken, Mehmet Alkan	S07-1-03

- 09:15 **Preparation of 1D velocity structure using records from moderate sized earthquakes** S07-1-04  
Subeg Bijukchhen, Nobuo Takai, Michiko Shigefuji, Masayoshi Ichiyanagi, Tsutomu Sasatani
- 09:30 **Regional Difference of Ground Motion for Shallow Crustal Earthquake in Taiwan and California** S07-1-05  
Shu-Hsien Chao, Chiao-Chu Hsu

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Session: **S07-2**

Session title: Hazard and risk assessment I

Type: Oral

Date: Monday, July 31, 2017

Time: 10:30 - 12:00

Room: Main Hall

Chairs: Massimiliano Pittore (GFZ Potsdam)  
Toshiaki Yokoi (BRI)

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- | Time  | Title  | Program No. |
|-------|--|-------------|
| 10:30 | <b>Seismic Hazard Assessment for DAM Site Candidates in the East Aceh, Indonesia</b><br><u>Yudhicara Hidayat</u> , Terianto Hidayat, Yopi Siswono, Hengky Pratama  | S07-2-01    |
| 10:45 | <b>Determination of Design Spectra with considering different site classification, in Andisheh suburb of Bandar Abbas, South of Iran</b><br><u>Maryam Sedghi</u> , Ramak Heidari, Abbas Jazayeri, Mohamadreza Gheitanchi             | S07-2-02    |
| 11:00 | <b>Joint project on seismic hazards in the Indo-Gangetic Plain, India: Results from Ground Motion Sensor network</b><br><u>Rajender Chadha</u> , Kazuki Koketsu, Srinagesh Davuluri, Shri Krishna Singh, Satoko Oki, Srinivas Dakuri | S07-2-03    |
| 11:30 | <b>Seismic Hazard Assessment of the 1995 Kobe Earthquake: Before and After</b><br><u>Hiroe Miyake</u>  | S07-2-04    |
| 11:45 | <b>Recent Seismicity and Potential Earthquake Risk in Major Ethiopian Cities</b><br><u>Atalay Ayele</u>  | S07-2-05    |

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Session: **S07-3**

Session title: Hazard and risk assessment II

Type: Oral

Date: Tuesday, August 1, 2017

Time: 08:30 - 10:00

Room: Main Hall

Chairs: Masumi Yamada (Kyoto University)  
Massimiliano Pittore (GFZ Potsdam)

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- | Time  | Title   | Program No. |
|-------|---|-------------|
| 08:30 | <b>Reconciliation of Canada's 5th Generation Seismic Hazard Model results with those from the OpenQuake-engine</b><br><u>John Adams</u> , Trevor Allen, Stephen Halchuk | S07-3-01    |

- 08:45 **A Novel Geodetic-based Probabilistic Seismic Hazard Model for Iran** S07-3-02  
Alireza Lotfi, Hamid Zafarani, Alireza Khodaverdian

- 09:00 **PERSIA, a novel time-dependent seismic hazard model for Iran, preliminary results for the Greater Tehran and surrounding areas** S07-3-03  
Hamid Zafarani, Seyed Mostafa Jalalalhosseini

- 09:15 **ANALYSIS OF RESPONSE SPECTRA OF CHARACTERISTIC GROUND MOTIONS RECORDED IN NORTH EAST INDIAN REGION** S07-3-04  
Babita Sharma

- 09:30 **TIME-DEPENDENT SEISMIC HAZARD DUE TO MINING-INDUCED EARTHQUAKES IN GAUTENG, SOUTH AFRICA** S07-3-05  
Brian Zulu, Vunganaï Midzi, Brassnavy Manzunzu, Raymond Durrheim

- 09:45 **SEISMIC RISK FOR CITIES AROUND THE LAKE KIVU BASIN, WESTERN BRANCH OF THE EAST-AFRICAN RIFTS SYSTEM** S07-3-06  
Wafula Mifundu, Kongbo Tambala

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Session: **S07-4**

Session title: Hazard and risk assessment, and data processing strategies

Type: Oral

Date: Tuesday, August 1, 2017

Time: 10:30 - 12:00

Room: Main Hall

Chairs: Massimiliano Pittore (GFZ Potsdam)  
Toshiaki Yokoi (BRI)

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- | Time  | Title  | Program No. |
|-------|--|-------------|
| 10:30 | <b>Rapid estimation of ground-shaking maps for seismic emergency management in Turkey</b><br>Ulubey Ceken, <u>Eren Tepeugur</u> , Turgay Kuru, Elcin Gok, Caglar Ozer, Orhan Polat   | S07-4-01    |
| 10:45 | <b>Development of a pilot seismic risk assessment for British Columbia, Canada, through the application of Global Earthquake Model's OpenQuake</b><br><u>Alison L. Bird</u> , J. Murray Journeay, Trevor I. Allen, John F. Cassidy, Nicky Hastings, Michelle M. Cote | S07-4-02    |
| 11:00 | <b>Ground motion predictions in the backdrop of recent claims for mega earthquake in Bangladesh</b><br><u>Tahmeed Malik Al-Hussaini</u>  | S07-4-03    |
| 11:15 | <b>Automatic detection of earthquakes, quarry blasts, rockfalls and avalanches on the Swiss permanent broadband network</b><br>Conny Hammer, <u>Donat Faeh</u>   | S07-4-04    |
| 11:30 | <b>Evaluation of the P-wave detection method using higher order statistics</b><br><u>Masumi Yamada</u> , Hirofumi Ishida   | S07-4-05    |

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Session: **S07-5**

Session title: Simulation for scenario earthquakes and strong motion monitoring / processing

Type: Oral

Date: Tuesday, August 1, 2017

Time: 13:30 - 15:00

Room: Main Hall

Chairs: Masumi Yamada (Kyoto University)  
John Clinton (ETH Zurich)

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Time	Title	Program No.
13:30	<b>Simulation of Strong Ground Motions in and around Iwaki City, Fukushima Prefecture, using Pseudo Point-source Model</b> <u>Takumi Hayashida</u> , Toshiaki Yokoi, Hiroto Nakagawa, Toshihide Kashima, Shin Koyama	S07-5-01
13:45	<b>Inversion seismic parameters model for stochastic ground motion simulation in Taiwan</b> <u>Jyun-Yan Huang</u> , Kuo-Liang Wen, Che-Min Lin, Chiao-Chu Hsu	S07-5-02
14:00	<b>Strong ground motion simulations for potential earthquakes around Taiyuan, China based on dynamic rupture sources</b> <u>Zhenguo Zhang</u> , Wei Zhang, Xiaofei Chen	S07-5-03
14:15	<b>3D numerical modeling of seismic wave propagation and amplification in Qaidam basin</b> <u>Yanyang Chen</u> , Takashi Furumura, Yanbin Wang	S07-5-04
14:30	<b>Strong-Motion Observation Network in the Philippines</b> Rhommel Grutas, Robert Tiglao, Melchor Lasala, Janila Deocampo, Ishmael Narag, Renato Solidum, Jr.	S07-5-05

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Session: **S07-6**

Session title: Site effects I

Type: Oral

Date: Tuesday, August 1, 2017

Time: 16:30 - 18:00

Room: Main Hall

Chairs: Jamison Steidl (University of California, Santa Barbara)  
Massimiliano Pittore (GFZ Potsdam)

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Time	Title	Program No.
16:30	<b>Relationship between the Shear Velocities from Microtremor Observations and Seismic Cone Penetration Test Results</b> <u>Rusnardi Rahmat Putra</u> , Junji Kiyono, Sai Vanapalli	S07-6-01
16:45	<b>HVSR site classification method for Chinese seismic code based on Japanese strong motion data</b> <u>Ruizhi Wen</u> , Yefei Ren, Kun Ji, Haiying Yu	S07-6-02

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17:00 **Nonlinear Site Response at KiK-net KMMH16 (Mashiki) and Heavily Damaged Sites during the 2016 Kumamoto Earthquake, Japan**  
Hiroyuki Goto, Yoshiya Hata, Masayuki Yoshimi, Nozomu Yoshida S07-6-03

17:15 **Long-period later phases observed in the Echigo Plain, Japan during the deep earthquake in the west off Ogasawara Islands of May 30, 2015**  
Tomiichi Uetake, Kazuhito Hikima, Masatoshi Fujioka, Yoshihiro Sawada, Shutaro Sekine S07-6-04

17:30 **Revision of 3D Model of the Kanto Basin based on Earthquake Records of MeSO-net**  
Haruo Yoshida, Yoshiyuki Sato, Kikuji Kobayashi, Naoko Umeda, Shinichi Sakai, Hirata Naoshi S07-6-05

17:30 **Direct evaluation of site amplification factors based on observed motions of earthquakes and microtremors**  
Hiroshi Kawase, Fumiaki Nagashima, Kenichi Nakano, Yuta Mori S07-6-06

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Session: **S07-7**

Session title: Site effects II

Type: Oral

Date: Wednesday, August 2, 2017

Time: 08:30 - 10:00

Room: Main Hall

Chairs: Toshiaki Yokoi (BRI)  
Jamison Steidl (University of California, Santa Barbara)

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Time	Title	Program No.
08:30	<b>Shallow shear wave velocity model of Taiwan constructed from Receiver Function Analysis of strong motion stations</b> <u>Che-Min Lin</u> , Kuo-Liang Wen, Chun-Hsiang Kuo, Jyun-Yan Huang, Hung-Hao Hsieh	S07-7-01
08:45	<b>Liquefaction Monitoring and Observations of Excess Pore Pressure Generation During Strong Motion</b> <u>Jamison Steidl</u>	S07-7-02
09:00	<b>Temporal nonlinear site response during Kumamoto Mw7.0 earthquake inferred from borehole strong motion data</b> <u>Junju Xie</u>	S07-7-03
09:15	<b>DETERMINATION OF DEEP SUBSURFACE SHAREWAVE VELOCITY STRUCTURE IN THE CENTRAL PART OF THE KATHMANDU BASIN, NEPAL USING BROAD BAND SEISMOGRAPH ARRAYS FOR LONG PERIOD MICROTREMOR</b> <u>Mukunda Bhattaraj</u> , Dinesh Nepali, Santosh Dhakal, Suresh Shrestha, Toshiaki Yokoi, Takumi Hayashida	S07-7-04

09:30	<b>The spatial variability of the directionally dependent microtremor horizontal-to-vertical spectral ratios at the boundary of the basin edge in Uji, Japan</b> <u>Shinichi Matsushima</u> , Keita Sato, Yuri Fukuoka	S07-7-05	13:45	<b>Validating a source model for the 2011 Tohoku Earthquake using a dense strong-motion array</b> <u>Atsushi Nozu</u>	S07-9-02
			14:00	<b>Features of long-period spectrum of SMART-1 array strong motion records</b> <u>Haiying Yu</u> , Baofeng Zhou, Xuan Xu, Ruizhi Wen, Dongwang Tao	S07-9-03

Session: **S07-8**

Session title: Strong motion and seismic sources I

Type: Oral

Date: Wednesday, August 2, 2017

Time: 10:30 - 12:00

Room: Main Hall

Chairs: Jamison Steidl (University of California, Santa Barbara)  
John Clinton (ETH Zurich)

Time	Title	Program No.
10:30	<b>Ground motion pattern generated by the undercrustal seismic source of the Vrancea region, Romania</b> <u>Luminita Angela Ardeleanu</u> , Cristian Neagoe, Bogdan Grecu, Bogdan Zaharia, Andreea Craiu	S07-8-01
10:45	<b>Strong ground motions due to the 2016 mid Tottori prefecture earthquake, Japan</b> <u>Takao Kagawa</u> , Tatsuya Noguchi, Shohei Yoshida, Hiroshi Ueno, Sho Nakai, Kazu Yoshimi, Shoya Arimura, Shinji Yamamoto	S07-8-02
11:00	<b>Peculiar strong ground motions from the very deep (h=680 km) Mw 7.9 Ogasawara Islands earthquake of 2015 May 30</b> <u>Takashi Furumura</u> , Brian LN Kennett	S07-8-03
11:15	<b>Slip Rates Inversion of 3-D Faults around Ordos Constrained by GPS and Leveling Observation</b> <u>Yilei Huang</u> , Shiyong Zhou, Shimin Wang	S07-8-04
11:30	<b>Near-field long-period strong ground motion during the 2016 Mw 7.0 Kumamoto earthquake</b> <u>Kojiro Irikura</u> , Susumu Kurahashi	S07-8-05

Session: **S07-9**

Session title: Strong motion and seismic sources II

Type: Oral

Date: Wednesday, August 2, 2017

Time: 13:30 - 15:00

Room: Main Hall

Chairs: Toshiaki Yokoi (BRI)  
Jamison Steidl (University of California, Santa Barbara)

Time	Title	Program No.
13:30	<b>Influence of vertical acceleration in seismic hazard. Observations of earthquakes in Ecuador</b> <u>Juan-Carlos Singaicho</u>	S07-9-01

14:15	<b>Processing Strategy On Strong Motion Records Of Bizarre Waveforms</b> <u>Baofeng Zhou</u> , Haiying Yu, Ruizhi Wen, Dongwang Tao	S07-9-04
14:30	<b>Site-specific investigations in the ongoing renewal project of the Swiss strong motion network (SSMNet)</b> <u>Manuel Hobiger</u> , Donat Faeh, Clotaire Michel, Paolo Bergamo, Walter Imperatori, John Clinton, Carlo Cauzzi, Eric Zimmermann, Franz Weber, Blaise Duvernay	S07-9-05

Session: **S07-P**

Type: Poster

Date: Tuesday, August 1/ Wednesday, August 2, 2017

Time: 15:30 - 16:30

Room: Event Hall

Title	Program No.
<b>Seismic Microzonation and Site Effect Response of Al Auja District</b> <u>Hatem Alwahsh</u>	S07-P-01
<b>Source effects of intraslab and interplate earthquakes off Miyagi Prefecture in Northeastern Japan and their relation to source depths</b> <u>Yasumaro Kakehi</u>	S07-P-02
<b>Strong Ground Motion Simulation by Combining Stochastic Green's Function Method with Hybrid Slip Model for February 6, 2016 Meinong, Taiwan Earthquake</b> <u>Cheng-Feng Wu</u> , Huey-Chu Huang	S07-P-03
<b>Nonlinear Site Response During the 2016 Meinong, Taiwan Earthquake</b> <u>Kuo-Liang Wen</u> , Chun-Te Chen, Shun-Chiang Chang	S07-P-04
<b>Evaluation of site effect by aftershock observation data due to the 2016 mid Tottori prefecture earthquake and microtremor observation in the mid area of Tottori Prefecture, Japan</b> <u>Tatsuya Noguchi</u> , Takao Kagawa, Shohei Yoshida, Sho Nakai, Hiroshi Ueno, Kazu Yoshimi, Shoya Arimura, Shinji Yamamoto, Hayato Nishikawa	S07-P-05
<b>The Probabilistic Seismic Hazard Assessment of South Africa</b> <u>Vunganai Midzi</u> , Brassnavy Manzunzu, Thifhelimbilu Mulabisana, Brian Zulu, Tebogo Pule, Sinovuyo Myendeki, Ganesh Rathod	S07-P-06



<b>Generation conditions of long-period ground motions in the Kanto Basin</b> <u>Yurie Mukai</u> , Takashi Furumura	S07-P-07	<b>S-wave structure in the Nansei Islands, Japan, inferred from microtremor array explorations</b> <u>Nobuyuki Yamada</u> , Hiroshi Takenaka, Masanao Komatsu	S07-P-20
<b>Shallow to deep velocity structure modeling of Oita Plain, Japan, using microtremor and borehole data</b> <u>Masayuki Yoshimi</u> , Takumi Hayashida, Shinichi Matsushima, Hiroshi Kawase, Hiroshi Takenaka, Nobuyuki Yamada, Hiroe Miyake, Takeshi Sugiyama, Tetsuyoshi Tokumaru, Haruhiko Suzuki, Atsushi Yatagai, Hisanori Matsuyama	S07-P-08	<b>Effect of shallow S-wave velocity structure on ground motion characteristics at temporary aftershock observation stations of the 2016 Kumamoto earthquake</b> <u>Kosuke Chimoto</u> , Hiroaki Yamanaka, Seiji Tsuno, Hiroe Miyake, Nobuyuki Yamada	S07-P-21
<b>Strong Ground-Motion Simulation of 2016 Meinong Earthquake Using Empirical Green's Function Method</b> <u>Ying-Chi Chen</u> , Huey-Chu Huang	S07-P-09	<b>SATREPS MarDiM Project on Earthquake and Tsunami Disaster Mitigation in the Marmara Region and Disaster Education in Turkey</b> <u>Seckin Ozgur Citak</u> , Yoshiyuki Kaneda, Haluk Ozener, Nurcan Meral Ozel, Dogan Kalafat, Narumi Takahashi, Takane Hori, Muneo Hori, Mayumi Sakamoto, Ali Pinar, Asim Oguz Ozel, Ahmet Cevdet Yalciner, Gulum Tanircan, Ahmet Demirtas	S07-P-22
<b>Segmentation of slow slip events in south central Alaska possibly controlled by a subducted oceanic plateau</b> <u>Haotian Li</u> , Meng Wei, Shiyong Zhou, Duo Li, Yajing Liu, Younghee Kim	S07-P-10	<b>The ground motion signature of supershear rupture in Burrdge-Andrews and free-surface-induced mechanisms</b> <u>Jiankuan Xu</u> , Xiaofei Chen	S07-P-23
<b>Difference in Ground Motion and Seismic Source Characteristics Between the Surface and Buried Rupture Crustal Earthquake in Japan</b> <u>Shohei Yoshida</u> , Takao Kagawa, Tatsuya Noguchi	S07-P-11	<b>Observed Near-Fault Ground Motion Characteristics during the 2016 Kumamoto, Japan, Mainshock</b> <u>Tomotaka Iwata</u> , Kimiyuki Asano	S07-P-24
<b>Combining deterministic simulation of ground motions and probabilistic approach: Large scale simulation for heterogeneous source models by FDM reciprocity method</b> <u>Anatoly Petukhin</u> , Haruko Sekiguchi, Hiroshi Kawase, Katsuhiro Kamae, Masato Tsurugi	S07-P-12	<b>Different spectra in the vertical seismic observation array</b> <u>Osamu Murakami</u> , Yasuhiro Asai, Hiroshi Ishii, Takahiro Kunitomo	S07-P-25
<b>Maps of Volcanic and Seismic Hazards on the Web</b> <u>Jayvie Nadua</u> , Analyn Aquino, Kervin Macaranas, Enrico Santos, Mabelline Cahulogan, Renato Solidum, Jr.	S07-P-13	<b>Surface wave propagation and magnitude (M<sub>j</sub>) overestimates in western Japan</b> <u>Hiroki Kawamoto</u> , Takashi Furumura	S07-P-26
<b>Characteristics of Seismic Response of the Taipei Basin</b> <u>Kou-Cheng Chen</u> , Jeen-Hwa Wang	S07-P-14		
<b>Surface deformations caused by underground nuclear explosions</b> Ella Gorbunova, Evgeny Vinogradov, <u>Alina Besedina</u>	S07-P-15		
<b>Broadband Ground Motion along the Joetsu Shinkansen during the 2004 Chuetsu Earthquake and Aftershock Sequence</b> <u>Yifei Chen</u> , Hiroe Miyake	S07-P-16		
<b>Multi-use seismic stations for earthquake early warning</b> Bruce Townsend, <u>Stephen Kilty</u> , Geoffrey Bainbridge, David Easton, Tim Parker	S07-P-17		
<b>Studies on Qs of Kyushu district in Japan</b> <u>Kenichi Nakano</u> , Shigeki Sakai	S07-P-18		
<b>Estimation of Empirical Green's Tensor Spatial Derivative Elements: A Preliminary Study using Strong Motion Records in Southern Fukui Prefecture, Japan</b> <u>Michihiro Otori</u>	S07-P-19		

# S08. Paleoseismology and paleotsunami studies: Their potential and limitation

Session: **S08-1**  
 Session title: Paleoseismology and paleotsunami studies: Their potential and limitation I  
 Type: Oral  
 Date: Friday, August 4, 2017  
 Time: 08:30 - 10:00  
 Room: Room 402  
 Chairs: Koji Okumura (Hiroshima University)  
 Shinji Toda (Tohoku University)

Time	Title	Program No.
08:30	<b>Paleoseismological evaluation and surface faults of the 2016 Kumamoto earthquake along Futagawa fault zone, central Kyushu, Japan</b> <u>Takashi Azuma</u>	S08-1-01 invited
09:00	<b>Paleoseismic history of the Hinagu fault zone, Kumamoto, Japan; Preliminary results of a trench excavation survey on the Takano-Shirahata segment</b> <u>Yoshiki Shirahama</u> , Yukari Miyashita, Takashi Azuma, Tetsuhiro Togo, Masao Kametaka, Yuji Suzuki	S08-1-02 invited
09:15	<b>Recent indications to improve evaluation of short active faults provided by the 2016 Kumamoto and Ibarakiken-hokubu, Japan, earthquakes</b> <u>Shinji Toda</u> , Daisuke Ishimura	S08-1-03 invited
09:30	<b>Late Quaternary Faulting Along the Different Segments of the Philippine Fault in Mindanao Island, Philippines</b> <u>Jeffrey Perez</u> , Hiroyuki Tsutsumi	S08-1-04 invited
09:45	<b>Paleoseismology of the Himalayan Frontal Zones</b> <u>Koji Okumura</u> , Javed Malik	S08-1-05 invited

Session: **S08-2**  
 Session title: Paleoseismology and paleotsunami studies: Their potential and limitation II  
 Type: Oral  
 Date: Friday, August 4, 2017  
 Time: 10:30 - 12:00  
 Room: Room 402  
 Chairs: Maria Teresa Ramirez Herrera (Universidad Nacional Autónoma de México)  
 Osamu Fujiwara (Geological Survey of Japan)

Time	Title	Program No.
10:30	<b>Large earthquakes in historical and pre-historical times in Switzerland: An overview of earthquake induced effects</b> <u>Donat Faeh</u> , Gabriela Gassner-Stamm, Michael Strasser, Remo Grolimund, Stephanie Wirth, Katrina Kremer	S08-2-01 invited
10:45	<b>Application of the paleoseismic record of great Cascadia earthquakes for use in the 2015 and 2020 National Building Code of Canada seismic hazard maps</b> <u>John Adams</u> , Stephen Halchuk, Garry Rogers, Trevor Allen	S08-2-02 invited
11:15	<b>The Great 1787 Earthquake (M 8.6) and Tsunami along the Mexican Subduction Zone – history, geology and tsunami hazard assessment</b> <u>Maria Teresa Ramirez Herrera</u> , Marcelo Lagos, Avto Goguitchaichvili, Maria Luisa Machain, Ana-Carolina Ruiz-Fernandez, Gerardo Suarez, Maria Ortuno, Margarita Caballero	S08-2-03 invited
11:30	<b>Has the unusual “mega-tsunami” ever occurred along the Nankai Trough?</b> <u>Osamu Fujiwara</u>	S08-2-04 invited
11:45	<b>A large slip area of the 2011 Tohoku-oki earthquake has been already ruptured by the 1611 Keicho Tsunami earthquake (Mw9.0)</b> <u>Yuichiro Tanioka</u> , Genta Fukuhara	S08-2-05 invited

Session: **S08-P**  
 Type: Poster  
 Date: Thursday, August 3/ Friday, August 4, 2017  
 Time: 15:30 - 16:30 / 15:00 - 16:00  
 Room: Event Hall

Title	Program No.
<b>Description and interpretation of the surface ruptures in northwest of the outer rim of the Aso caldera triggered by Kumamoto Earthquake</b> <u>Hiroshi Une</u> , Takayuki Nakano, Satoshi Fujiwara, Tomokazu Kobayashi, Yu Morishita, Kazumi Iwata, Hiroshi, P. Sato, Hiroshi Yagi	S08-P-01
<b>Temporal clustering and occurrence probability of large earthquakes on active faults in Japan</b> <u>Hisao Kondo</u> , Kazuhiro Iwakiri, Hirota Tani, Kenji Satake	S08-P-02

**REFINEMENT OF PHILIPPINE TSUNAMI HAZARD MAPS: The TsuHaMEI Project**  
Analyn D. Aquino, Jayvie H. Nadua, Joan C. Salcedo, Maria Leonila P. Bautista, Ishmael C. Narag, Bartolome C. Bautista, Renato U. Solidum, Jr.

S08-P-03

Session: **S09-2**  
 Session title: Open session: Earthquake generation process – physics, modeling and monitoring for forecast II  
 Type: Oral  
 Date: Tuesday, August 1, 2017  
 Time: 10:30 - 12:00  
 Room: Room 503  
 Chairs: Alexey Zavyalov (Institute of Physics of the Earth RAS)  
 Naoshi Hirata (ERI)

## IASPEI Earthquake Generation Process

# S09. Open session: Earthquake generation process - physics, modeling and monitoring for forecast

Session: **S09-1**  
 Session title: Open session: Earthquake generation process – physics, modeling and monitoring for forecast I  
 Type: Oral  
 Date: Tuesday, August 1, 2017  
 Time: 08:30 - 10:00  
 Room: Room 503  
 Chairs: Naoshi Hirata (ERI)  
 David Rhoades (GNS)

Time	Title	Program No.
08:30	<b>Round-the-world seismic echo effect in aftershock sequences of strong earthquakes: a statistical analysis</b> <u>Alexey Zavyalov</u> , Oleg Zotov, Anatol Guglielmi, Ivan Lavrov	S09-1-01 invited
08:45	<b>Synchronization of Stick-Slip Oscillator by Periodic External Forces –Implications for Earthquake Activity Rhythms-</b> <u>Kazuro Hirahara</u>	S09-1-02
09:00	<b>Synchronization and chaotic behavior of earthquake cycles in a model with interacting fault patches</b> <u>Naoyuki Kato</u>	S09-1-03
09:30	<b>Observations and modeling of short-term phenomena in the preparatory stage of large earthquakes</b> <u>Kiyoshi Suyehiro</u> , Selwyn Sacks, Paul Rydelek, Deborah Smith, Tetsuo Takunami	S09-1-04

Time	Title	Program No.
10:30	<b>Remote triggering of earthquakes as a possible stress-meter: the case of the 2016 M7.3 Kumamoto (Japan) mainshock</b> <u>Bogdan Enescu</u> , Kengo Shimojo, Anca Opris, Yuji Yagi	S09-2-01
10:45	<b>Withdrawn</b>	S09-2-02
11:00	<b>Coulomb Stress Transfer and Accumulation on the Sagaing Fault, Myanmar over the Past 110 years and Its Implications for Seismic Hazard</b> <u>Xiong Xiong</u> , Bin Shan, Yuming Zhou, Shengji Wei, Yongdong Li, Rongjiang Wang	S09-2-03
11:15	<b>Testing the Coulomb stress triggering hypothesis for three recent megathrust earthquakes</b> <u>Takeo Ishibe</u> , Yosihiko Ogata, Hiroshi Tsuruoka, Kenji Satake	S09-2-04
11:30	<b>Fluid injection effects on induced seismic activity in multi-degree-of-freedom rate-and-state model</b> <u>Sergey Turuntaev</u> , Vasily Riga	S09-2-05

Session: **S09-3**  
 Session title: Open session: Earthquake generation process – physics, modeling and monitoring for forecast III  
 Type: Oral  
 Date: Tuesday, August 1, 2017  
 Time: 13:30 - 15:00  
 Room: Room 503  
 Chairs: David Rhoades (GNS)  
 Alexey Zavyalov (Inst. of Physics of the Earth RAS)

Time	Title	Program No.
13:30	<b>Seismic valve as a driving mechanism of the 2014 aftershock sequences in West Bohemia</b> <u>Tomas Fischer</u> , Ctirad Matyska, Jens Heinicke, Sebastian Hainzl	S09-3-01
13:45	<b>A NEW APPROACH TO FAULT ZONE SEISMIC MONITORING</b> <u>Svetlana Kishkina</u> , Gevorg Kocharyan, Dmitry Pavlov	S09-3-02
14:00	<b>Seismic sources under tensional regime - TRM and DEM approaches</b> <u>Wojciech Debski</u> , Piotr Klejment, Alicja Kosmala, Natalia Foltyn	S09-3-03

- 14:15 **Estimating the Locations of Past and Future Large Earthquake Ruptures in California using Recent M4 and Greater Events**  
John Ebel S09-3-04
- 14:30 **CSEP-Japan earthquake predictability experiment for physics-based modeling and testing**  
Naoshi Hirata, Hiroshi Tsuruoka, Danijel Schorlemmer S09-3-05

Session: **S09-P**  
Type: Poster  
Date: Tuesday, August 1/ Wednesday, August 2, 2017  
Time: 15:30 - 16:30  
Room: Event Hall

Title	Program No.
<b>The relation between the deep lithospheric structure and observed seismicity in the European Arctic</b> Galina Antonovskaya, Irina Basakina, Irina Fedorenko, Natalia Kapustian, Evgeniy Rogozhin, <u>Alexey Zavyalov</u>	S09-P-01
<b>Postseismic Process of Moderate and Large Interplate Earthquakes within the Source Area of the Megathrust Earthquakes Along the Nankai Trough</b> Mamoru Hyodo, Ryoichiro Agata, Tsuyoshi Ichimura, <u>Takane Hori</u>	S09-P-02
<b>Time to instability of the seismic event triggered by SSE</b> <u>Makiko Ohtani</u> , Nobuki Kame, Masao Nakatani	S09-P-03

## S10. Development, testing and application of earthquake forecasting models

Session: **S10-1**  
Session title: Development, testing and application of earthquake forecasting models  
Type: Oral  
Date: Tuesday, August 1, 2017  
Time: 16:30 - 18:00  
Room: Room 503  
Chairs: David Rhoades (GNS Science)  
John Ebel (Boston College)

Time	Title	Program No.
16:30	<b>Prospective evaluation of the CSEP-Japan earthquake forecasts experiments</b> <u>Hiroshi Tsuruoka</u> , Naoshi Hirata	S10-1-01
16:45	<b>Using GNSS data to analysis the earthquake potential of Sichuan-Yunnan region, western China</b> <u>Fan Wang</u> , Peng Zhang, Zhanyi Sun	S10-1-02
17:00	<b>Seismological and geodetic tools can jointly contribute to the understanding and prediction of earthquakes</b> Giuliano F. Panza, Antonella Peresan, Fernando Sanso', <u>Mattia Crespi</u> , Augusto Mazzoni, Andrea Nascetti	S10-1-03
17:15	<b>On what time scales can strain rates contribute to earthquake likelihood models?</b> <u>David Rhoades</u> , Bill Fry, Annemarie Christophersen	S10-1-04
17:30	<b>Reducing false alarms of annual forecast in the central China north-south seismic belt by reverse tracing of precursors (RTP)</b> <u>Zhongliang Wu</u> , Changsheng Jiang, Shengfeng Zhang	S10-1-05
17:45	<b>Break of slope in earthquake size distribution and aseismic deformation rate</b> <u>Peter Shebalin</u> , Inessa Vorovieva, Clement Narteau, Sergey Baranov	S10-1-06

Session: **S10-P**  
 Type: Poster  
 Date: Tuesday, August 1/ Wednesday, August 2, 2017  
 Time: 15:30 - 16:30  
 Room: Event Hall

Title	Program No.
<b>The technology for automatic probabilistic prediction of earthquakes</b> Valeri Gitis, <a href="#">Alexander Derendyaev</a>	S10-P-01
<b>Application of earthquake forecasting models in central New Zealand following the November 2016 Kaikoura earthquake</b> <a href="#">David Rhoades</a> , Annemarie Christophersen, Matthew Gerstenberger, David Harte	S10-P-02
<b>Time-dependent neo-deterministic seismic hazard scenarios for the Italian territory: recent advances and testing issues</b> Antonella Peresan, Vladimir Kossobokov, Giuliano F. Panza, <a href="#">Mattia Crespi</a>	S10-P-03

09:00 **Characteristics of Ionospheric Electron Distribution for large Earthquakes around Japan**  
[Katsumi Hattori](#), Mustafa Yagmur, Shinji Hirooka, Jann-Yenq Liu S11-1-03 invited

Session: **S11-2**  
 Session title: Geo & space technologies to study pre-earthquake processes: Observation, modeling, forecasting II  
 Type: Oral  
 Date: Wednesday, August 2, 2017  
 Time: 10:30 - 12:00  
 Room: Room 503  
 Chairs: Dimitar Ouzounov (Chapman University)  
 Tiger Liu (National Central University)

Time	Title	Program No.
10:30	<b>Estimates of Seismic Danger in Japan by Coherence Properties of GPS Noise</b> <a href="#">Alexey Lyubushin</a>	S11-2-01 invited
10:45	<b>Correlation between earthquake occurrence and the anomalous propagation of VHF radio waves indicated by the gain and the p-value of prediction maps produced by a simple objective algorithm in the Shimabara area, Kyushu, Japan</b> <a href="#">Sho Morita</a> , Masao Nakatani, Toru Mogi	S11-2-02 invited
11:00	<b>Testing Geospace Technologies for Alerting Large Earthquakes: An Integrated Approach of Space and Ground Observations</b> <a href="#">Dimitar Ouzounov</a> , Sergey Puienets, Tiger Liu, Katsumi Hattori, Manuel Hernández-Pajares, Alberto García-Rigo, Menas Kafatos	S11-2-03 invited

# S11. Geo & space technologies to study pre-earthquake processes: Observation, modeling, forecasting

Session: **S11-1**  
 Session title: Geo & space technologies to study pre-earthquake processes: Observation, modeling, forecasting I  
 Type: Oral  
 Date: Wednesday, August 2, 2017  
 Time: 08:30 - 10:00  
 Room: Room 503  
 Chairs: Dimitar Ouzounov (Chapman University)  
 Katsumi Hattori (Chiba University)

Time	Title	Program No.
08:30	<b>TEC anomalies immediately before large earthquakes: Review and perspective</b> <a href="#">Kosuke Heki</a> , Liming He	S11-1-01 invited
08:45	<b>Modification of ionosphere before March 11 2011 Tohoku earthquake</b> <a href="#">Koichiro Oyama</a> , C.H Chen, L Bankov, M Devi, K Ryu, J.Y Liu, H Liu, T Uozumi	S11-1-02 invited

Session: **S11-P**  
 Type: Poster  
 Date: Tuesday, August 1/ Wednesday, August 2, 2017  
 Time: 15:30 - 16:30  
 Room: Event Hall

Title	Program No.
<b>Quantification of Seismic Hazards with Detrended Fluctuation Analysis of Time Series: Case Studies of the Japanese Islands and California</b> Denis Filatov, <a href="#">Alexey Lyubushin</a>	S11-P-01
<b>Possible conjugated TEC anomalies preceding large earthquakes</b> <a href="#">Liming He</a> , Kosuke Heki	S11-P-02
<b>Variations of statistical parameters of the background seismic noise before strong earthquakes in Kamchatka</b> Victoria Kasimova, <a href="#">Alexey Lyubushin</a> , Galina Kopylova	S11-P-03

**Clarification of the mechanism of VLF radiation intensity reduction before earthquakes observed by DEMETER and WWLLN data**  
 Shoho Togo, Hidetoshi Nitta, Jean-Jacques Berthelier, Tatsuo Onishi, Masashi Kamogawa, [Tetsuya Kodama](#), Toshiyasu Nagao

S11-P-04

16:45 **Multi-parameter assessments of pre-earthquake atmospheric signals**  
[Dimitar Ouzouniv](#), Sergey Pulnits, Tiger Liu, Katsumi Hattori, Peng Han

S12-2-02  
invited

17:00 **Probability tomography and wavelet analysis of self-potential data and possible application in landslide monitoring**  
[Qinghua Huang](#), Kaiyan Hu, Katsumi Hattori

S12-2-03  
invited

## S12. An interdisciplinary approach towards earthquake prediction studies

Session: **S12-1**  
 Session title: An interdisciplinary approach towards earthquake prediction studies I  
 Type: Oral  
 Date: Wednesday, August 2, 2017  
 Time: 13:30 - 15:00  
 Room: Room 503  
 Chairs: Dimitar Ouzounov (Chapman University)  
 Toshiyasu Nagao (Tokai University)

Time	Title	Program No.
13:30	<b>Combining probabilistic seismicity models with precursory information: application to long-delayed aftershocks</b> <a href="#">Peter Shebalin</a>	S12-1-01 invited
13:45	<b>Nowcasting Global Earthquakes</b> <a href="#">John Rundle</a>	S12-1-02 invited
14:00	<b>integrated Study and Test for Earthquake Precursors (iSTEP-4)</b> <a href="#">Jann-Yeng Tiger Liu</a>	S12-1-03 invited

Session: **S12-2**  
 Session title: An interdisciplinary approach towards earthquake prediction studies II  
 Type: Oral  
 Date: Wednesday, August 2, 2017  
 Time: 16:30 - 18:00  
 Room: Room 503  
 Chairs: Dimitar Ouzounov (Chapman University)  
 Katsumi Hattori (Chiba University)

Time	Title	Program No.
16:30	<b>Coupled interaction of deep Earth gases with quasi-static rupture of earthquake nuclei; possible source mechanism for seismo-EMs</b> <a href="#">Yuji Enomoto</a>	S12-2-01 invited

Session: **S12-P**  
 Type: Poster  
 Date: Tuesday, August 1/ Wednesday, August 2, 2017  
 Time: 15:30 - 16:30  
 Room: Event Hall

Title	Program No.
<b>Characterizing the nature of spatial heterogeneities based on multi-fractal and seismic b-value analysis of the 2015 Nepal earthquake sequence</b> <a href="#">Vijay Prasad Dimri</a> , Nampally Subhadra, Simanchal Padhy	S12-P-01
<b>Precursory signature of a megathrust earthquake and postseismic effects on regional earthquake induction</b> <a href="#">Tae-Kyung Hong</a> , Junhyung Lee, Seongjun Park	S12-P-02
<b>Resistivity changes during the 2015 seismic swarm detected by real-time magnetotelluric monitoring system in Taal volcano (Philippines)</b> <a href="#">Paul Karson Alanis</a> , Paolo Reniva, Juan Cordon, Allan Loza, Lawrence Aaron Banes, Yoichi Sasai, Akihiro Takeuchi, Toshiyasu Nagao	S12-P-03
<b>Characteristics of b-value and TEC changes in Space and Time before the Large Earthquakes in Japan</b> Takaaki Kobari, Peng Han, <a href="#">Katsumi Hattori</a>	S12-P-04
<b>Anomalies of astronomical time-latitude observations before strong earthquake and discussions on the problems of its application</b> <a href="#">Bo Wang</a> , Zhiqiang Yin, Lili Tian, Hongqi Wang, Yanben Han	S12-P-05
<b>Abnormal seismicity of slow earthquakes on land prior to 2011 Tohoku earthquake</b> <a href="#">Tomoki Tokuda</a> , Hirohiko Shimada	S12-P-06

## IASPEI Earthquake Source Mechanics

# S13. Earthquake source mechanics

Session: **S13-1**  
 Session title: Earthquake source mechanics I  
 Type: Oral  
 Date: Thursday, August 3, 2017  
 Time: 08:30 - 10:00  
 Room: Main Hall  
 Chairs: Torsten Dahm (Deutsches GeoForschungsZentrum GFZ)  
 Simone Cesca (Deutsches GeoForschungsZentrum GFZ)

Time	Title	Program No.
08:30	<b>Challenges in moment tensor resolution: collapses, explosions and shallow earthquakes</b> <u>Simone Cesca</u> , Sebastian Heimann	S13-1-01
08:45	<b>Uncertainties in moment tensor estimation for induced earthquakes illustrated at the example of the Groningen gas field, The Netherlands</b> <u>Daniela Kuehn</u> , Sebastian Heimann, Sven Peter Naesholm, Ben Dando, Hom Nath Gharti, Elmer Ruigrok	S13-1-02
09:00	<b>Moment tensor inversion based on the principal component analysis: Method and application to the 2014 earthquake sequence in West Bohemia, Czech Republic</b> <u>Vaclav Vavrycuk</u> , Petra Adamova, Jana Doubravova, Hana Jakoubkova	S13-1-03
09:15	<b>Non double couple components of Mw&gt;4.5 events in The Geysers geothermal field, California revealed by a hierarchical Bayesian inversion</b> <u>Marija Mustac</u> , Hrvoje Tkalčić	S13-1-04
09:30	<b>Determination of high precision microseismic source mechanism by iterative relative moment tensor inversion</b> <u>Kazutoshi Imanishi</u> , Takahiko Uchide	S13-1-05
09:45	<b>Microseismic Event Relocation and Focal Mechanism Estimation Based on PageRank Linkage</b> <u>Ana C. Aguiar</u> , Stephen C. Myers	S13-1-06

Session: **S13-2**  
 Session title: Earthquake source mechanics II  
 Type: Oral  
 Date: Thursday, August 3, 2017  
 Time: 10:30 - 12:00  
 Room: Main Hall  
 Chairs: Simone Cesca (Deutsches GeoForschungsZentrum GFZ)  
 Yuji Yagi (Graduate School of Life and Environmental Sciences)

Time	Title	Program No.
10:30	<b>Demonstration of improved seismic source inversion method of tele-seismic body wave</b> <u>Yuji Yagi</u> , Ryo Okuwaki	S13-2-01
10:45	<b>A Bayesian hierarchical model for a seismic source inversion</b> <u>Amato Kasahara</u> , Yuji Yagi	S13-2-02
11:00	<b>Seismicity of the Nordland area, Norway</b> <u>Jan Michalek</u> , Lars Ottemoeller, Jens Havskov, Marte Louise Stromme, Berit Marie Storheim	S13-2-03
11:15	<b>earthquake statistics, spatiotemporal distribution of foci and source mechanisms as a key to understanding of causes leading to the West Bohemia/Vogtland earthquake swarms</b> <u>Josef Horalek</u> , Hana Jakoubkova	S13-2-04
11:30	<b>Induced seismicity of Kuzbass (Russia). Bachatskoe earthquake of 2013, ML=6.1</b> <u>Aleksey Emanov</u> , Aleksandr Emanov, Ekaterina Leskova, Aleksandr Fateev	S13-2-05
11:45	<b>Crustal stress field in Taiwan inferred from regional-scale damped inversion of a newly derived homogeneous earthquake focal mechanism dataset</b> <u>Wen-Tzong Liang</u> , Ping-Han Huang, Yi-Ling Huang, Pei-Ru Jiang, Tai-Lin Tseng	S13-2-06

Session: **S13-3**  
 Session title: Earthquake source mechanics III  
 Type: Oral  
 Date: Thursday, August 3, 2017  
 Time: 13:30 - 15:00  
 Room: Main Hall  
 Chairs: Yuji Yagi (Graduate School of Life and Environmental Sciences)  
 Satoshi Ide (University of Tokyo)

Time	Title	Program No.
13:30	<b>Tidal controls on earthquake size-frequency statistics</b> <u>Satoshi Ide</u> , Suguru Yabe, Yoshiyuki Tanaka	S13-3-01
13:45	<b>A statistical characterization of earthquake initiation and its implication</b> <u>Shunta Noda</u> , William Ellsworth	S13-3-02

14:00	<b>Effective stress drop of earthquake clusters</b> <u>Tomas Fischer</u> , Sebastian Hainzl	S13-3-03
14:15	<b>Radiated Energy Enhancement and Rupture Complexity of Large Subduction-Zone Earthquakes</b> Lingling Ye, Hiroo Kanamori, <u>Thorne Lay</u>	S13-3-04
14:30	<b>Seismic energy release at the seismogenic zone of Guerrero, Mexico</b> <u>Raymundo Plata-Martinez</u> , Xyoli Perez-Campos, Shri Krishna Singh	S13-3-05
14:45	<b>Seismic source spectra and the relation between corner frequency and source properties derived from spontaneous rupture of a circular fault</b> <u>Jian Wen</u> , Xiaofei Chen, Jianxuan Xu	S13-3-06

Session: **S13-4**  
 Session title: Earthquake source mechanics IV  
 Type: Oral  
 Date: Thursday, August 3, 2017  
 Time: 16:30 - 18:00  
 Room: Main Hall  
 Chairs: Takahiko Uchide (National Institute of Advanced Industrial Science and Technology (AIST))  
 Masaru Nakano (JAMSTEC)

Time	Title	Program No.
16:30	<b>Earthquake Source Spectral Studies beyond the Standard Omega-Square Model</b> <u>Takahiko Uchide</u> , Kazutoshi Imanishi	S13-4-01
16:45	<b>Eccentric by-players of the 2011 Mw 9.1 Tohoku earthquake</b> <u>Ichiro Kawasaki</u> , Hiroshi Ishii, Yasuhiro Asai, Takuya Nishimura	S13-4-02
17:00	<b>Bayesian inference of centroid moment tensors of the April 2016, Kumamoto (Kyushu, Japan), earthquake sequence</b> <u>Miroslav Hallo</u> , Kimiyuki Asano, Frantisek Gallovic	S13-4-03
17:15	<b>Intraplate events off Sumatra – 3-D evolution</b> <u>Brian Kennett</u> , Alexei Gorbатов, Stewart Fishwick	S13-4-04
17:30	<b>Rupture evolution during the Mw 8.3 2015 Illapel Chile earthquake in relation to swarms</b> <u>Ryo Okuwaki</u> , Yuji Yagi	S13-4-05
17:45	<b>Rupture on the megasplay fault along the Nankai trough during the off-Mie earthquake (Mw=6.0) on 1 April 2016</b> <u>Masaru Nakano</u> , Ayako Nakanishi, Mikiya Yamashita, Takashi Tonegawa, Takane Hori, Shin'ichiro Kamiya, Kensuke Suzuki, Koichiro Obana, Shuichi Kodaira, Eiichiro Araki, Narumi Takahashi	S13-4-06

Session: **S13-5**  
 Session title: Earthquake source mechanics V  
 Type: Oral  
 Date: Friday, August 4, 2017  
 Time: 08:30 - 10:00  
 Room: Main Hall  
 Chairs: Hideo Aochi (BRGM - French Geological Survey)  
 Yoshihiro Kaneko (GNS Science)

Time	Title	Program No.
08:30	<b>Asperity imaging of the ML6.0 2016 Amatrice, Italy, earthquake from dynamic rupture simulation</b> <u>Hideo Aochi</u>	S13-5-01
08:45	<b>Dynamic Rupture Simulations Constrained by Experimental Data to Investigate the Fault Behavior of Mega-Thrust Earthquakes</b> <u>Kenichi Tsuda</u> , Jun'ichi Miyakoshi, Jean-Paul Ampuero, Yoshiyuki Imato, Daisuke Sugiyama, Seiji Tsuboi	S13-5-02
09:00	<b>Super-shear fault rupture propagation during the 2016 Kumamoto earthquake (Mw7.1); Possible implication for fault strength</b> <u>Nelson Pulido</u>	S13-5-03
09:15	<b>Why did the moderate size 2010 Yushun, China earthquake (Mw=6.8) produce supershear rupture?</b> <u>Shoubiao Zhu</u> , Jie Yuan	S13-5-04
09:30	<b>Dynamic Source Inversion of Intermediate Depth Earthquakes in Mexico</b> Aron Yuto Sho Mirwald, <u>Victor Manuel Cruz Atienza</u> , Shri Krishna Singh	S13-5-05
09:45	<b>Slip-weakening distance and strength drop inferred from near-fault deformation during the 2016 M7.8 Kaikoura earthquake</b> <u>Yoshihiro Kaneko</u> , Eiichi Fukuyama, Ian Hamling	S13-5-06

Session: **S13-6**  
 Session title: Earthquake source mechanics VI  
 Type: Oral  
 Date: Friday, August 4, 2017  
 Time: 10:30 - 12:00  
 Room: Main Hall  
 Chairs: Hideo Aochi (BRGM - French Geological Survey)  
 Seok Goo Song (KIGAM)

Time	Title	Program No.
10:30	<b>Photoelastic Study of Dynamic Stress Transfers in Granular Media</b> <u>Koji Uenishi</u> , Tsukasa Goji, Wojciech Debski	S13-6-01
10:45	<b>Near-fault Tilt Motion and Conjugate Faulting</b> <u>Eiichi Fukuyama</u>	S13-6-02
11:00	<b>Supershear rupture induced by step over geometry and its effect on near field ground motion</b> <u>Feng Hu</u> , Xiaofei Chen	S13-6-03



11:15	<b>Modeling dynamic earthquake rupture with coseismic off-fault damage</b> <u>Kurama Okubo</u> , Harsha S. Bhat, Yann Klinger, Esteban Rougier	S13-6-04	<b>Rupture process of the Ms 7.4 November 15, 2004 Colombia earthquake</b> <u>Sandra Patricia Molina Garcia</u> , Luis Quintatar	S13-P-08
11:30	<b>Investigating the variability of near-source ground motions using pseudo-dynamic source models at the SCEC Broadband Platform</b> <u>Seok Goo Song</u>	S13-6-05	<b>Source inversion and stochastic ground motion modelling of the August Mw 6.8 Myanmar earthquake</b> <u>Hasbi Ash Shiddiqi</u> , Pa Pa Tun, Tun Lin Kyaw, Lars Ottemoller	S13-P-09
11:45	<b>Variation of Earthquake Source Scenarios along the Nankai Trough for Hazard and Risk Assessment</b> <u>Hiroe Miyake</u> , Takashi Furumura, Takuya Nishimura, Kimihiro Mochizuki, Kazushige Obara, Tomoya Harada, Naoya Sekiya	S13-6-06	<b>Early rupture process of the 2016 Kumamoto earthquake inferred from source imaging</b> <u>Takamasa Usami</u> , Masanao Komatsu, Hiroshi Takenaka	S13-P-10

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Session: **S13-P**  
Type: Poster  
Date: Thursday, August 3/ Friday, August 4, 2017  
Time: 15:30 - 16:30 / 15:00 - 16:00  
Room: Event Hall

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Title	Program No.
<b>A web-platform benchmark for moment tensor inversion</b> <u>Torsten Dahm</u> , Sebastian Heimann, Simone Cesca	S13-P-01
<b>Centroid moment tensor solution using 3D heterogeneous anisotropic Earth: application to Papua New Guinea and Solomon Islands</b> <u>Babak Hejrani</u> , Hrvoje Tkalčić, Andreas Fichtner	S13-P-02
<b>Single Layer Recurrent Neural Network for detection of swarm-like earthquakes in West Bohemia and South-west Iceland</b> <u>Jana Doubravova</u> , Jan Wiszniowski, Josef Horalek	S13-P-03
<b>An evolutive quasi-real-time source inversion based on a linear inverse formulation</b> Hugo Sanchez Reyes, <u>Josue Tago Pacheco</u> , Victor Cruz Atienza, Ludovic Metivier, Marcial Contreras Zazueta, Jean Virieux	S13-P-04
<b>Source properties of large earthquakes in subduction zones using 3D heterogeneous Earth: application to the Australasian region</b> <u>Babak Hejrani</u> , Hrvoje Tkalčić	S13-P-05
<b>Complete synthetic seismograms based on a spherical self-gravitating Earth model with an atmosphere-ocean-mantle-core structure</b> Rongjiang Wang, Sebastian Heimann, Yong Zhang, Hansheng Wang, <u>Torsten Dahm</u>	S13-P-06
<b>Detecting the Temporal Variation in Seismic Velocity Accompanied by 2011 Tohoku-Oki Earthquake and the Slow Slip Event, Using Seismic Interferometry of Ambient Noise</b> <u>Miyuu Uemura</u> , Yoshihiro Ito, Kazuaki Ohta, Ryota Hino, Masanao Shinohara	S13-P-07

<b>The intraplate Maranhao earthquake of 2017 Jan 03, northern Brazil: evidence of uniform regional stresses along the Brazilian equatorial margin</b> Fabio Dias, <u>Marcelo Assumpcao</u> , Marcelo Bianchi, Lucas Barros, Juraci Carvalho	S13-P-12
<b>Radiation Efficiency of Intraslab Earthquakes beneath Kyushu</b> <u>Yumenari Adachi</u> , Junichi Nakajima, Toru Matsuzawa	S13-P-13
<b>Source time function archive of deep earthquake: re-examination of hierarchy source model</b> <u>Yasushi Ishihara</u>	S13-P-14
<b>A model of dynamic earthquake triggering based on rate- and state-dependent friction law</b> <u>Shingo Yoshida</u>	S13-P-15
<b>Estimation of the dynamic rupture parameters for the 2016 Tottoriken-chubu earthquake</b> <u>Keisuke Sato</u> , Shoichi Yoshioka, Hideo Aochi	S13-P-16
<b>Dynamic rupture model of the 2014 northern Nagano, central Japan, earthquake</b> <u>Yuko Kase</u>	S13-P-17
<b>A Possible Dynamic Rupture Scenario of the Nankai-trough Earthquakes, southwest Japan</b> <u>Yumi Urata</u> , Eiichi Fukuyama, Chihiro Hashimoto	S13-P-18

## IASPEI Earth Structure and Geodynamics

# S14. Upper mantle and transition zone dynamics and structure

Session: **S14-1**  
 Session title: Upper mantle and transition zone dynamics and structure I  
 Type: Oral  
 Date: Wednesday, August 2, 2017  
 Time: 08:30 - 10:00  
 Room: Room 402  
 Chairs: Christine Houser (Tokyo Institute of Technology)  
 George Helffrich (Tokyo Institute of Technology)

Time	Title	Program No.
08:30	<b>Observations of Upper Mantle Discontinuity Structure</b> <u>Nicholas Schmerr</u>	S14-1-01 invited
09:00	<b>Cold, hot mantle transition zone beneath Hawaii mapped from teleseismic Ps receiver functions</b> <u>Matthew Agius</u> , Catherine Rychert, Nicholas Harmon, Gabi Laske	S14-1-02
09:15	<b>Slow velocities and thin transition zone indicate upwelling lower mantle beneath eastern Eurasia</b> <u>Christine Houser</u> , Alex Webb	S14-1-03
09:30	<b>A three-dimensional electrical conductivity image of the mantle plume of the Society hotspot in French Polynesia</b> <u>Noriko Tada</u> , Pascal Tarits, Kiyoshi Baba, Hisashi Utada, Takafumi Kasaya, Daisuke Suetsugu	S14-1-04
09:45	<b>Seismic evidence for broad attenuation anomalies in the asthenosphere beneath the Pacific ocean</b> Alice Adenis, <u>Eric Debayle</u> , Yanick Ricard	S14-1-05

Session: **S14-2**  
 Session title: Upper mantle and transition zone dynamics and structure II  
 Type: Oral  
 Date: Wednesday, August 2, 2017  
 Time: 10:30 - 12:00  
 Room: Room 402  
 Chairs: Christine Houser (Tokyo Institute of Technology)  
 George Helffrich (Tokyo Institute of Technology)

Time	Title	Program No.
10:30	<b>Mantle transition zone, stagnant slab and intraplate volcanism in Northeast Asia</b> <u>Dapeng Zhao</u> , Chuanxu Chen, You Tian, Shiguo Wu, Akira Hasegawa, Jianshe Lei, Jung-Ho Park, Ik-Bum Kang	S14-2-01
10:45	<b>Transition-zone imaging below Japan with ScS reverberations</b> <u>Elmer Ruigrok</u> , Kiwamu Nishida, Katsuhiko Shiomi	S14-2-02
11:00	<b>Mantle transition zone beneath a normal seafloor in the northwestern Pacific: Electrical conductivity, seismic thickness, and water content</b> <u>Tetsuo Matsuno</u> , Daisuke Suetsugu, Kiyoshi Baba, Noriko Tada, Hisayoshi Shimizu, Hajime Shiobara, Takehi Isse, Hiroko Sugioka, Aki Ito, Masayuki Obayashi, Hisashi Utada	S14-2-03
11:15	<b>Upper-Mantle Discontinuities Across Stable South American Continent</b> Marcelo Bianchi, <u>Marcelo Assumpcao</u> , Jordi Julia	S14-2-04
11:30	<b>Towards 3D Kirchhoff Migration of Receiver Functions at Continental Scale</b> <u>Florian Millet</u> , Thomas Bodin, Stephane Rondenay	S14-2-05
11:45	<b>Phase speed measurements of multi-mode surface waves using a broad-band array: Application to USArray</b> <u>Hitoshi Matsuzawa</u> , Kazunori Yoshizawa	S14-2-06

Session: **S14-P**  
 Type: Poster  
 Date: Thursday, August 3/ Friday, August 4, 2017  
 Time: 15:30 - 16:30 / 15:00 - 16:00  
 Room: Event Hall

Title	Program No.
<b>Unusually deep Bonin earthquake of 30 May 2015: A precursory signal to slab penetration</b> <u>Masayuki Obayashi</u> , Yoshio Fukao, Junko Yoshimitsu	S14-P-01
<b>Structure of Crust and Upper Mantle beneath South China Sea revealed by Surface Wave Tomography</b> Thi Giang Ha, Tien Hung Nguyen, Satoru Tanaka, <u>Le Minh Nguyen</u> , Yasushi Ishihara, Vinh Long Ha, Quang Khoi Le	S14-P-02

<b>Differences in the lithosphere seismic structure along the Brazilian continental margin in the South Atlantic from travel time seismic tomography</b> Marcelo Rocha, Paulo Azevedo, <a href="#">Marcelo Assumpcao</a> , George Franca, Giuliano Marotta	S14-P-03
<b>Slow recycling of cold slab remnants in vigorous mantle convection</b> <a href="#">Gary Jarvis</a>	S14-P-04
<b>Detecting Seismic Anisotropy in the Mantle Transition Zone with SS Precursors</b> <a href="#">Quancheng Huang</a> , Nicholas Schmerr, Lauren Waszek, Caroline Beghein, Erik Weidner	S14-P-05
<b>Seismic attenuation of multiple ScS phases beneath South China Sea</b> <a href="#">Le Minh Nguyen</a> , Satoru Tanaka, Yashushi Ishihara, Tien Hung Nguyen, Vinh Long Ha, Thi Giang Ha, Daisuke Suetsugu	S14-P-06
<b>Lithospheric Shear-wave Structure beneath North America</b> <a href="#">Risheng Chu</a> , Justin Ko, Shengji Wei, Zhongwen Zhan, Don Helmberger	S14-P-07
<b>Shear-wave velocity model of Palawan, Philippines from receiver function analysis</b> <a href="#">Arianne Gail Rivera</a> , Takuo Shibutani	S14-P-08
<b>Seismic discontinuities in the upper mantle around Vietnam inferred from receiver functions</b> <a href="#">Takashi Tonegawa</a> , Minh Nguyen, Satoru Tanaka, Yasushi Ishihara, Giang Ha, Ryuta Arai, Hung Nguyen, Bor-Shouh Huang, Win-Gee Huang	S14-P-09

## S15. Mid-mantle structure

Session: **S15-1**  
 Session title: Structure and dynamics of the mid mantle  
 Type: Oral  
 Date: Wednesday, August 2, 2017  
 Time: 13:30 - 15:00  
 Room: Room 402  
 Chairs: Christine Houser (Tokyo Institute of Technology)  
 Nicholas Schmerr (University of Maryland)

Time	Title	Program No.
13:30	<b>First principles investigation of the high-pressure behavior of the FeOOH-AlOOH-phase H (MgSiO<sub>4</sub>H<sub>2</sub>) system</b> <a href="#">Jun Tsuchiya</a> , Elizabeth C. Thompson, Taku Tsuchiya, Masayuki Nishi, Yasuhiro Kuwayama	S15-1-01 invited

14:00	<b>Large-scale compositional heterogeneity in the Earth's mantle</b> <a href="#">Maxim Ballmer</a>	S15-1-02 invited
14:15	<b>Mineralogical model of the lower mantle inferred from high-pressure sound velocity data</b> <a href="#">Izumi Mashino</a> , Motohiko Murakami, Nobuyoshi Miyajima, Sylvain Petitgirard, Daniel Frost	S15-1-03 invited

## S16. Large low shear velocity provinces and deep mantle structure

Session: **S16-1**  
 Session title: Large low shear velocity provinces and deep mantle structure  
 Type: Oral  
 Date: Wednesday, August 2, 2017  
 Time: 16:30 - 18:00  
 Room: Room 402  
 Chairs: Allen McNamara (Michigan State University)  
 Takashi Nakagawa (Japan Agency for Marine-Earth Science and Technology)

Time	Title	Program No.
16:30	<b>Shear Wave Velocity Structure and Anisotropy atop the Core Mantle Boundary Beneath the Indian Ocean Geoid Low</b> <a href="#">Padma Rao Bommoju</a> , Ravi Kumar Mangalampally	S16-1-01
16:45	<b>ON THE NATURE OF LARGE ULTRA-LOW VELOCITY ZONES AT THE ROOT OF MAJOR HOTSPOT PLUMES</b> <a href="#">Barbara Romanowicz</a> , Kaiqing Yuan	S16-1-02 invited
17:00	<b>Waveform inversion for localized three-dimensional shear wave velocity structure within the lowermost mantle</b> <a href="#">Kenji Kawai</a> , Anselme Borgeaud, Yuki Suzuki, Kensuke Konishi, Robert Geller	S16-1-03
17:15	<b>Deep mantle heterogeneity and its relationship with deep mantle heat flow inferred from 3D spherical mantle convection with plate reconstruction system in 200 Myrs</b> <a href="#">Takashi Nakagawa</a>	S16-1-04 invited
17:30	<b>Constraining Mantle Viscosity and Thermochemical Structure Using the Geoid in 3-D Mantle Convection Models with Plate Motion History</b> Wei Mao, <a href="#">Shijie Zhong</a> , Mingming Li	S16-1-05

17:45 **Effect of cation substitution on bridgmanite elasticity** S16-1-06  
 Hiroshi Fukui, Akira Yoneda, Akihiko Nakatsuka, Seiji Kamada, Takashi Yoshino, Alfred Baron

## S17. Outer core structure and dynamics

Session: **S17-1**  
 Session title: Outer core structure and dynamics (Oral contributions)  
 Type: Oral  
 Date: Thursday, August 3, 2017  
 Time: 08:30 - 10:00  
 Room: Room 402  
 Chairs: George Helffrich (Tokyo Institute of Technology)  
 Hrvoje Tkalčić (Australian National University)

Time	Title	Program No.
08:30	<b>Seismic structure of the Earth's outermost core</b> <u>Satoshi Kaneshima</u>	S17-1-01 invited
09:00	<b>Erosion of a thermally induced stably stratified layer by compositional convection in the Earth's outer core</b> <u>Shi-ichi Takehiro</u> , Youhei Sasaki	S17-1-02
09:15	<b>Neutrino oscillations and electron density distribution of the Earth's core</b> <u>Akimichi Taketa</u> , Carsten Rott	S17-1-03

Session: **S17-P**  
 Type: Poster  
 Date: Thursday, August 3/ Friday, August 4, 2017  
 Time: 15:30 - 16:30 / 15:00 - 16:00  
 Room: Event Hall

Title	Program No.
<b>Seismological evidence for heterogeneous lowermost outer core (F-layer) of the Earth</b> <u>Toshiki Ohtaki</u> , Satoshi Kaneshima, Hiroki Ichikawa, Taku Tsuchiya	S17-P-01
<b>Outer core stratification by crystallization of SiO<sub>2</sub></b> <u>George Helffrich</u> , Kei Hirose, Guillaume Morard, Ryosuke Sinmyo	S17-P-02

## S18. Inner core structure

Session: **S18-1**  
 Session title: Inner core structure and dynamics  
 Type: Oral  
 Date: Thursday, August 3, 2017  
 Time: 10:30 - 12:00  
 Room: Room 402  
 Chairs: Hrvoje Tkalčić (The Australian National University)  
 George Helffrich (Tokyo Institute of Technology)

Time	Title	Program No.
10:30	<b>Geodynamical modeling and seismic observations: a step towards mapping regional structures of Earth's inner core</b> <u>Lauren Waszek</u>	S18-1-01 invited
10:45	<b>Complex inner core of the Earth constrained by differential travel times and differential ray parameters</b> <u>Tae-Gyu Yee</u> , Junkee Rhee, Hrvoje Tkalčić	S18-1-02
11:00	<b>Temporal change of seismic data associated with the Earth's inner core: inner core super-rotation or temporal change of inner core surface?</b> <u>Lianxing Wen</u> , Jiaoyuan Yao	S18-1-03
11:15	<b>Comparison of frequency dependent reflection coefficients at the inner core boundary beneath the central America and western Pacific</b> <u>Satoru Tanaka</u> , Hrvoje Tkalčić	S18-1-04
11:30	<b>Complex Iron Lattice Preferred Orientation Pattern at the Earth's Inner</b> <u>Maurizio Mattesini</u> , Anatoly Belonoshko, Hrvoje Tkalčić	S18-1-05
11:45	<b>Studies of inner core anisotropy from noise interferometry</b> <u>Xiaodong Song</u> , Tao Wang, Han Xia	S18-1-06

Session: **S18-P**  
 Type: Poster  
 Date: Thursday, August 3/ Friday, August 4, 2017  
 Time: 15:30 - 16:30 / 15:00 - 16:00  
 Room: Event Hall

Title	Program No.
<b>GrowYourIC: a step towards reconciling geodynamical models to seismic observations of the inner core</b> <u>Marine Lasbleis</u> , Lauren Waszek, Elizabeth Day	S18-P-01
<b>Full parameter space search for a layered, anisotropic inner core using the Neighbourhood Algorithm</b> <u>Joanne Stephenson</u> , Hrvoje Tkalčić	S18-P-02

**Toward probing the deep Earth's interior using spiral-arm arrays and principles of seismic interferometry**  
Thanh-Son Pham, Hrvoje Tkalčić,  
 Malcolm Sambridge

S18-P-03

09:45 **Investigating the Interior of Icy Worlds with Short Aperture Seismic Arrays**  
Nicholas Schmerr

S19-1-06  
 invited

## S19. Planetary seismology

Session: **S19-1**  
 Session title: Giant planet and remote sensing seismology, Europa and ocean-world seismology  
 Type: Oral  
 Date: Monday, July 31, 2017  
 Time: 08:30 - 10:00  
 Room: Room 402  
 Chairs: Patrick Gaulme (New Mexico State University)  
 Philippe Lognonné (Institut de Physique du Globe de Paris-Sorbonne Paris Cité)

Time	Title	Program No.
08:30	<b>A Window into Giant Planet Structure using Saturn's Natural Seismograph</b> <u>Christopher Mankovich</u> , Mark Marley, Jonathan Fortney, Neil Murphy	S19-1-01
08:45	<b>Probing the interior of Jupiter toward unveiling its formation: A new attempt with Jovian seismology</b> <u>Masahiro Ikoma</u> , Bun'ei Sato, Takashi Sekii, Hidekazu Hanayama, Shigeru Ida	S19-1-02
09:00	<b>Study of the Seismic Response of Dayside Non-LTE CO<sub>2</sub> Emissions of Planets</b> <u>Raphael F. Garcia</u> , Miguel Angel Lopez Valverde, Sébastien Lebonnois, Quentin Brissaud, Attila Komjathy, James Cutts, Philippe Lognonné	S19-1-03
09:15	<b>Planetary Seismology Using Infrasonic and Airglow Signatures on Venus</b> <u>Attila Komjathy</u> , James Cutts, Michael Pauken, Sharon Kedar, Suzanne Smrekar, Jeff Hall, Alan Didion, Balthasar Kenda, Jennifer Jackson, David Mimoun, Raphael Garcia, Philippe Lognonne	S19-1-04
09:30	<b>Seismic Exploration of Europa and Other Ocean Worlds</b> <u>Steven Vance</u> , Sharon Kedar, Sridhar Anandakrishnan, Bruce Banderdt, Bruce Bills, Fabio Cammarano, Julie Castillo, Hsin-Hua Huang, Jennifer Jackson, Philippe Lognonne, Ralph Lorenz, Mark Panning, William Pike, Simon Staehler, Victor Tsai	S19-1-05 invited

Session: **S19-2**  
 Session title: Apollo seismic data re-processing and future lunar seismology project  
 Type: Oral  
 Date: Monday, July 31, 2017  
 Time: 10:30 - 12:00  
 Room: Room 402  
 Chairs: Taichi Kawamura (National Astronomical Observatory of Japan)  
 Nicholas Schmerr (University of Maryland)

Time	Title	Program No.
10:30	<b>Seismic velocity and crustal thickness inversions: Moon and Mars</b> <u>Melanie Drilleau</u> , Jean-Francois Blanchette-Guertin, Taichi Kawamura, Philippe Lognonne, Mark Wieczorek	S19-2-01
10:45	<b>Effects of lateral variations of Moon crustal thickness on lunar seismic wave propagation: numerical study and comparing with the Apollo seismic data</b> <u>Yanbin Wang</u> , Fei Chen, Xianghua Jiang	S19-2-02
11:00	<b>Scattering attenuation profile of the Moon : implications for shallow moonquakes and the structure of the megaregolith</b> <u>Kevin Gillet</u> , Ludovic Margerin, Marie Calvet, Marc Monnereau	S19-2-03
11:15	<b>Source Time Function and Source Parameters of Lunar Quakes and Impacts</b> <u>Taichi Kawamura</u> , Philippe Lognonne	S19-2-04
11:30	<b>Updated travel time analysis of Apollo artificial impacts' seismic data with the precise source locations identified by LRO</b> <u>Keisuke Onodera</u> , Satoshi Tanaka, Taichi Kawamura, Yoshiaki Ishihara	S19-2-05
11:45	<b>Technical Readiness of Japanese lunar penetrator and its application to small-class space program: APPROACH</b> <u>Hiroaki Shiraishi</u> , Satoshi Tanaka, Masahiko Hayakawa, Masanobu Ozaki, Takahide Mizuno, Ken Goto, Kosei Ishimura, Ryuhei Yamada, Taichi Kawamura, Yoshiaki Ishihara, Kei Shirai, Hideki Murakami	S19-2-06 invited

Session: **S19-3**  
 Session title: Seismic missions and instruments: from insight to future projects on small bodies and planets with atmosphere  
 Type: Oral  
 Date: Tuesday, August 1, 2017  
 Time: 08:30 - 10:00  
 Room: Room 402  
 Chairs: Bruce Banerdt (Jet Propulsion Laboratory)  
 Philippe Lognonné (Institut de Physique du Globe de Paris-Sorbonne Paris Cité)

Time	Title	Program No.
08:30	<b>The Seismic Exploration of Mars by the InSight Mission</b> <u>W. Bruce Banerdt</u> , Philippe Lognonne, Domenico Giardini, W. Tom Pike, SEIS Team	S19-3-01 invited
09:00	<b>The InSight VBB seismometer: status and perspective for future missions</b> <u>Tanguy Nebut</u> , Sebastien Deraucourt, Philippe Lognonne, William Banerdt, Glenn Aveni, Rob Calvet, Pierre-Alain Dandonneau, Melanie Drilleau, Taoufik Gabsi, Kenneth Hurst, Benoit Lecomte, Michel Parise, Olivier Robert, Sylvain Tillier, Gabriel Pont, Nicolas Verdier, Philippe Laudet, Lucile Fayon, Hubert Halloin, SEIS/VBB Team	S19-3-02 invited
09:15	<b>The SP Microseismometer for the InSight Mission to Mars</b> <u>W. T. Pike</u> , I. M. Standley, S. B. Calcutt	S19-3-03 invited
09:30	<b>Conceptual Study of Small Active Seismic Exploration Package on Moons and Small Bodies</b> Kazunori Ogawa, <u>Taichi Kawamura</u> , Yoshiaki Ishihara, Takeshi Tsuji, Taizo Kobayashi, Ryuhei Yamada, Akito Araya, Satoshi Tanaka, Nozomu Takeuchi	S19-3-04 invited

Session: **S19-4**  
 Session title: Science goals and modeling of the Insight/SEIS experiment  
 Type: Oral  
 Date: Tuesday, August 1, 2017  
 Time: 10:30 - 12:00  
 Room: Room 402  
 Chairs: Philippe Lognonné (Institut de Physique du Globe de Paris-Sorbonne Paris Cité)  
 Bruce Banerdt (Jet Propulsion Laboratory)

Time	Title	Program No.
10:30	<b>SEIS/INSIGHT: One year prior the Seismic Discovery of Mars</b> <u>Philippe Lognonne</u> , William B. Banerdt, Domenico Giardini, William Tom Pike, Sebastien De Raucourt, Jeff Umland, Ken Hurst, Peter Zweifel, Simon Calcutt, Marco Bierwirth, David Mimoun, Gabriel Pont, Nicolas Verdier, Tom Hofmann, Don Banfield, John Clinton, Veronique Dehant, Matt Golombek, Raphael Garcia, Catherine Johnson, SEIS Team	S19-4-01

10:45 **Mars' core and what its seismological structure could reveal about the planet's evolution**  
George Helffrich S19-4-02

11:00 **Preparing for InSight: a Blind Test for Detection and Location of Martian Seismicity**  
Domenico Giardini, John Clinton, Philippe Lognonne, Bruce Banerdt, Savas Ceylan, Martin Van Driel, Amir Khan, Mark Panning, Maren Boese, Raphael Garcia, Melanie Drilleau, Davide Mimoun, Naomi Mudooh, B Kenda, A Spiga, Antoine Mocquet, A Rivoldini, O Verhoeven, The SEIS Team S19-4-03

11:15 **Modeling the seismic signals generated by dust devils on Mars**  
Balthasar Kenda, Philippe Lognonne, Aymeric Spiga, Taichi Kawamura, Sharon Kedar, Bruce Banerdt, Ralph Lorenz, Don Banfield, Matt Golombek S19-4-04

11:30 **Planned Products of the Mars Structure Service for the InSight Mission to Mars**  
Mark P. Panning, Melanie Drilleau, Philippe Lognonne, W. Bruce Banerdt, Raphael Garcia, Matthew Golombek, Sharon Kedar, Brigitte Knapmeyer-Endrun, Antoine Mocquet, Nick A. Teanby, Jeroen Tromp, Renee Weber, Eric Beucler, Jean-Francois Blanchette-Guertin, Ebru Bozdog, Tamara Gudkova, Stefanie Hempel, Amir Khan, Vedran Lekic, Naomi Murdoch, The Mars Structure Service Team S19-4-05

11:45 **The Marsquake Service: generating a seismicity catalogue for Mars**  
John Clinton, Savas Ceylan, Maren Boese, Fabian Euchner, Domenico Giardini, Amir Khan, Martin Van Driel, Raphael Garcia, Philippe Lognonne, Melanie Drilleau, Mark Panning, Bruce Banerdt, Eric Beucler, Antoine Mocquet, Taichi Kawamura, J-F Blanchette-Guertin, The SEIS Team S19-4-06

Session: **S19-P**  
 Type: Poster  
 Date: Tuesday, August 1/ Wednesday, August 2, 2017  
 Time: 15:30 - 16:30  
 Room: Event Hall

Title	Program No.
<b>Seismic Wave Simulations on Mars : Comparisons between 1D interior models and effect of 3D structures</b> <u>Ebru Bozdog</u> , Melanie Drilleau, Philippe Lognonne, Domenico Giardini, Mark Panning, John Clinton, Antoine Mocquet, Raphael Garcia, Rene Weber, Jeroen Tromp, Mark Wieczorek, Bruce Banerdt, Youyi Ruan, Nathan Mettetz, Amir Khan, Kuangdai Leng, Martin van Driel, Carene Larmat, Savas Caylan, Eric Beucler, SEIS Science Team	S19-P-01

**Estimation and detection of Mars' background free oscillations for InSIGHT mission**  
 Yasuhiro Nishiakwa, Philippe Lognonne, Taichi Kawamura, Aymeric Spiga, Tanguy Bertrand, Kei Kurita

S19-P-02

14:30 **Modeling Earthquake-Induced Travelling Ionospheric Disturbances**  
 Xing Meng, Attila Komjathy, Olga Verkhoglyadova, Anthony Mannucci

S20-1-05

14:45 **Exploring the Use of Airglow Measurements for Detecting Seismicity on Venus**  
 Balthasar Kenda, Philippe Lognonne, Attila Komjathy, Bruce Banerdt, Jim Cutts, Lauriane Soret, Jennifer Jackson

S20-1-06

## S20. Earth and planetary space and remote sensing seismology; i.e., seismology without seismometers

Session: **S20-P**  
 Type: Poster  
 Date: Tuesday, August 1/ Wednesday, August 2, 2017  
 Time: 15:30 - 16:30  
 Room: Event Hall

Session: **S20-1**  
 Session title: Earth and planetary space and remote sensing seismology; i.e., seismology without seismometers  
 Type: Oral  
 Date: Tuesday, August 1, 2017  
 Time: 13:30 - 15:00  
 Room: Room 402  
 Chairs: Lucie Rolland (Observatoire de la Côte d'Azur)  
 Kosuke Heki (Hokkaido University)

Title	Program No.
<b>Atmospheric interior resonances : theory and observation on Earth and comparative analysis for terrestrial planets with atmosphere</b> Philippe Lognonne, Virgile Rakoto, Foivos Karakostas, Lucie Rolland, Elvira Astafyeva, Balthasar Kenda, Yasuhiro Nishikawa	S20-P-01
<b>Recording TEC profiles from aircrafts for tsunami early warning</b> Melanie Drilleau, Pierdavide Coisson, Lucie Rolland, Philippe Lognonne, Halfidi Jonsson, Virgile Rakoto, Khaled Khelfi, Giovanni Occhipinti	S20-P-02
<b>Signals in the ionosphere generated by tsunami earthquakes: observations and modeling support</b> Lucie Rolland, Carene Larmat, Anthony Sladen, Marcel Rémillieux, Khaled Khelfi, Elvira Astafyeva, Philippe Lognonné	S20-P-03

Time	Title	Program No.
13:30	<b>Surface waves magnitude estimation from ionospheric signature of Rayleigh waves measured by Doppler sounder and OTH radar</b> Giovanni Occhipinti, Florent Aden-Antoniow, Virgile Rakoto, Aurelien Babet, Jean-Philippe Molinie, Thomas Farges, Philippe Lognonné	S20-1-01
13:45	<b>Ionospheric volcanology: GNSS-TEC observation &amp; modeling of the 2015 Kuchinoerabujima eruption</b> Yuki Nakashima, Kiwamu Nishida, Yosuke Aoki, Giovanni Occhipinti, Kosuke Heki	S20-1-02
14:00	<b>Traveling Ionospheric Disturbance Triggered by Tsunami Observed by GPS and Geostationary Satellites of BeiDou</b> Jann-Yeng Tiger Liu, Pei-Hsuan Lin, Tso-Ren Wu, Yu-Lin Tsai, Ho-Fang Tsai, Chien-Hung Lin, Chia-Hung Chen	S20-1-03
14:15	<b>Inversion of the GPS -TEC induced by tsunami in order to estimate the sea level anomaly using a the normal mode modeling</b> Virgile Rakoto, Philippe Lognonne, Lucie Rolland	S20-1-04

## IASPEI Tectonophysics and Crustal Structure

### S21. Lithospheric structure

Session: **S21-1**  
 Session title: Lithospheric discontinuities I - LAB  
 Type: Oral  
 Date: Thursday, August 3, 2017  
 Time: 13:30 - 15:00  
 Room: Room 501  
 Chairs: Jaroslava Plomerova (Inst. Geophysics, Czech Acad. Sci., Prague)  
 Ulrich Achauer (IPGS-EOST, University of Strasbourg)

Time	Title	Program No.
13:30	<b>Imaging lithospheric seismic discontinuities beneath Cascadia using S-to-P receiver functions</b> <u>Catherine Rychert</u> , Nicholas Harmon, Saikiran Tharimena, Saikiran Tharimena	S21-1-01 invited
14:00	<b>The depth of the LAB across Cenozoic Europe from seismological studies</b> <u>Ulrich Achauer</u> , Michel Granet	S21-1-02
14:15	<b>Imaging the lithosphere - top to bottom - of the Hikurangi plateau as it subducts beneath North Island, New Zealand</b> <u>Tim Stern</u> , Stuart Henrys, Simon Lamb, David Okaya, Brook Tozer	S21-1-03
14:30	<b>Imaging the Pacific lithosphere discontinuities near 60 km depth using SS precursors and constraints on defining mechanism</b> <u>Nicholas Harmon</u> , Catherine Rychert, Saikiran Tharimena	S21-1-04
14:45	<b>Lithospheric heat production: calculating mantle heat flow from asthenospheric shear velocity variations</b> <u>Scott Whipperfurth</u> , Vedran Lekic, William McDonough	S21-1-05

Session: **S21-2**  
 Session title: Seismic images of the upper mantle  
 Type: Oral  
 Date: Thursday, August 3, 2017  
 Time: 16:30 - 18:00  
 Room: Room 501  
 Chairs: Ulrich Achauer (IPGS-EOST, University of Strasbourg)  
 Brian Kennett (Australian National University)

Time	Title	Program No.
16:30	<b>Continental growth in eastern Australia: Insights from the mantle lithosphere</b> <u>Nicholas Rawlinson</u>	S21-2-01 invited
17:00	<b>Tearing of Indian mantle lithosphere from high-resolution seismic images: Implications for lithosphere deformation coupling in southern Tibet</b> Jiangtao Li, <u>Xiaodong Song</u>	S21-2-02
17:15	<b>Mantle lithosphere edges of Baltic Shield and East European Craton retrieved by seismic anisotropy</b> <u>Jaroslava Plomerova</u> , Helena Munzarova, Vladislav Babuska, Ludek Vecsey	S21-2-03
17:30	<b>Shear Wave Splitting and Upper Mantle Flow in Mexico</b> <u>Raul W. Valenzuela</u> , Gerardo Leon Soto	S21-2-04
17:45	<b>Numerical simulation of 3D mantle flow in the Aegean (Hellenic) and Cyprus subduction systems linking to seismic anisotropy beneath the eastern Mediterranean and Anatolia</b> <u>Judith Confal</u> , Manuele Faccenda, Tuna Eken, Tuncay Taymaz	S21-2-05

Session: **S21-3**  
 Session title: Seismic anisotropy tomography  
 Type: Oral  
 Date: Friday, August 4, 2017  
 Time: 08:30 - 10:00  
 Room: Room 501  
 Chairs: Nicholas Harmon (University of Southampton)  
 Jaroslava Plomerova (Inst. Geophysics, Czech Acad. Sci., Prague)

Time	Title	Program No.
08:30	<b>Seismic anisotropy tomography of the Western Pacific subduction zones</b> <u>Dapeng Zhao</u> , Xin Liu, Wei Wei	S21-3-01 invited
09:00	<b>Constraints on Anisotropic Velocity Structure of the Lithosphere-asthenosphere System in the Central Pacific from the NoMelt OBS Array</b> <u>Pei-Ying Lin</u> , James Gaherty, Joshua Russell, Ge Jin, Shu-Huei Hung, John Collins, Daniel Lizarralde, Rob. Evans, Greg Hirth	S21-3-02



- 09:15 **Upper mantle structure beneath the Pacific Ocean revealed by land and seafloor broadband observations** S21-3-03  
Takehi Isse, Hajime Shiobara, Kazunori Yoshizawa, Hitoshi Kawakatsu, Hiroko Sugioka, Aki Ito, Daisuke Suetsugu, Hisashi Utada
- 09:30 **Shear-wave Splitting in the Crust and its Tectonic Implications** S21-3-04  
Yuan Gao, Yutao Shi, Qiong Wang

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Session: **S21-4**  
 Session title: Lithospheric discontinuities II – Reflectivity  
 Type: Oral  
 Date: Friday, August 4, 2017  
 Time: 10:30 - 12:00  
 Room: Room 501  
 Chairs: Catherine Rychert (National Oceanography Centre Southampton, University of Southampton)  
 Nick Rawlinson (University of Cambridge)

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Time	Title	Program No.
10:30	<b>Multi-scale Structure and Lithospheric Discontinuities</b> <u>Brian Kennett</u>	S21-4-01 invited
11:00	<b>On the feasibility and use of teleseismic P-wave coda autocorrelation for mapping shallow seismic discontinuities</b> <u>Thanh-Son Pham</u> , Hrvoje Tkalčić	S21-4-02
11:15	<b>Estimating geophysical model uncertainties in testing procedures versus geodetic data</b> <u>Riccardo Barzaghi</u> , Anna Maria Marotta	S21-4-03
11:30	<b>The Mid-lithosphere discontinuity beneath North China Craton</b> <u>Weijia Sun</u> , B. L. N. Kennett	S21-4-04
11:45	<b>Integrating seismological and satellite gravity data for consistent 3D Earth models</b> <u>Jorg Ebbing</u>	S21-4-05

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Session: **S21-5**  
 Session title: Attenuation and lithosphere structure  
 Type: Oral  
 Date: Friday, August 4, 2017  
 Time: 13:30 - 15:00  
 Room: Room 501  
 Chairs: Kevin Furlong (PennState College of Earth and Mineral Sciences)  
 Ulrich Achauer (IPGS-EOST, University of Strasbourg)

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Time	Title	Program No.
13:30	<b>Tectonic Implications of Lithospheric Attenuation Models</b> <u>Michael Pasyanos</u> , Rengin Gok, William Walter	S21-5-01 invited

- 14:00 **Lithospheric structure beneath Thailand as revealed by seismological approach and its future study with Thai Seismic ARray (TSAR)** S21-5-02  
Sutthipong Noisagool, Kiwamu Nishida, Hitoshi Kawakatsu, Songkhun Boonchaisuk, Weerachai Siripunvaraporn

- 14:15 **Crustal anisotropy in different tectonic regimes inferred from the stacking of radial and transverse receiver functions** S21-5-03  
Frederik Link, Georg Ruempker, Ayoub Kaviani

- 14:30 **Active magmatic underplating in an intraplate setting: combined seismic, seismological, and isotope study in the western Eger Rift, Central Europe** S21-5-04  
Pavla Hrubcova, Wolfram Geissler, Karin Brauer, Horst Kampf, Vaclav Vavrycuk, Cestmir Tomek

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Session: **S21-P**  
 Type: Poster  
 Date: Thursday, August 3/ Friday, August 4, 2017  
 Time: 15:30 - 16:30 / 15:00 - 16:00  
 Room: Event Hall

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Title	Program No.
<b>Formation of the Earth's lithosphere - asthenosphere surface initial heterogeneities</b> <u>Yurii Khachai</u> , Vsevolod Anfilogov, Alexandr Antipin	S21-P-01
<b>Oceanic Lithosphere-Asthenosphere Boundary Estimated from Stress Dependent Deformation after the 2012 Indian Ocean Earthquake</b> <u>Cecep Pratama</u> , Takeo Ito, Takao Tabei, Ryohei Sasajima, Putra Maulida, Irwan Meilano, Joni Efendi	S21-P-02
<b>Seismic constraints on thinning of continental lithosphere beneath the Korean Peninsula: A possible link to oceanic slab subductions and mantle transition zone heterogeneities</b> <u>Seongryong Kim</u> , Benoit Tauzin, Hrvoje Tkalčić, Junkee Rhie	S21-P-03
<b>Lithospheric Density Structure of Northwest India</b> <u>Niraj Kumar</u> , Anand Prakash Singh, Virendra Mani Tiwari	S21-P-04
<b>Azimuthal anisotropy in the Northwest Pacific oceanic lithosphere inferred from Po/So waves</b> <u>Azusa Shito</u> , Daisuke Suetsugu, Takashi Furumura	S21-P-05
<b>The shear-wave splitting in the crust and the upper mantle around the Bohai Sea, North China</b> <u>Yutao Shi</u>	S21-P-06

<b>Effects of random heterogeneity in the upper mantle on apparent radial anisotropy</b> <u>Kazunori Yoshizawa</u> , Yunao Xu, Takashi Furumura	S21-P-07	<b>Crustal structure across the central Ganga foreland basin by magnetotellurics</b> <u>A Manglik</u> , L Adilakshmi, S Thiagarajan, M Suresh	S21-P-18
<b>Constraints on lithospheric mantle and crustal anisotropy in the NoMelt area from an analysis of long-period seafloor magnetotelluric data</b> <u>Tetsuo Matsuno</u> , Rob. Evans	S21-P-08	<b>Three-Dimensional resistivity structure beneath Payao Fault zone: biggest earthquake in Thailand (5 may 2014)</b> <u>Songkhun Boonchaisuk</u> , Puwis Amatyakul, Tawat Rung-Arunwan, Sutthipong Noisagool, Weerachai Siripunvaraporn	S21-P-19
<b>Upper Mantle and Crustal Structure of Sino-Korean and Yangtze Block from Onshore-Offshore Wide-angle seismic surveys</b> <u>Lihua Liu</u> , Tianyao Hao, Chuanchuan Lyu, Qingyu You, Ya Xu	S21-P-09	<b>Estimation of electrical anisotropy in the oceanic upper mantle from seafloor magnetotelluric array data</b> <u>Tetsuo Matsuno</u> , Kiyoshi Baba, Hisashi Utada	S21-P-20
<b>Shallow Moho along the failed rift on the coast of Japan Sea beneath Japanese Islands</b> <u>Makoto Matsubara</u> , Hiroshi Sato	S21-P-10		
<b>Spatial distribution of the Crust-Mantle boundary in colliding and subducting Izu-Bonin-Mariana Arc beneath Japan using Receiver Function analysis</b> <u>Sawako Kinoshita</u> , Kiwamu Nishida, Toshihiro Igarashi, Yosuke Aoki, Minoru Takeo	S21-P-11		
<b>Seismological evidence of slab dehydration based on a high-resolution receiver function image of the subducting Philippine Sea plate beneath western Shikoku, southwest Japan</b> <u>Katsuhiko Shiomi</u> , Tetsuya Takeda, Tomotake Ueno	S21-P-12		
<b>Estimation of global crustal model uncertainty using geostatistical analysis</b> Wolfgang Szwillus, Walter D. Mooney, <u>Jorg Ebbing</u>	S21-P-13		
<b>Three-Dimensional Seismic Velocity Models of P and S Waves Beneath Western Part of Java, Indonesia from Double-difference Tomography</b> <u>Shindy Rosalia</u> , Sri Widiyantoro, Andri Dian Nugraha	S21-P-14		
<b>Heterogeneous structure beneath fault zones of the 2016 Kumamoto earthquake</b> <u>Megumi Kamizono</u> , Satoshi Matsumoto, Yusuke Yamashita, Manami Nakamoto, Masahiro Miyazaki, Shin-ichi Sakai, Yoshihisa Iio, Group for urgent joint seismic observation of the 2016 Kumamoto earthquake	S21-P-15		
<b>Tectonic Tremor in northern Central Range, Taiwan</b> <u>Wei-Fang Sun</u> , Cheng-Horng Lin, Yi-Heng Li, Wen-Yen Chang	S21-P-16		
<b>Three dimensional resistivity structure in the source region of SSEs in Boso peninsula, Central Japan</b> <u>Midori Hayakawa</u> , Mao Okuda, Toru Mogi, Kotaro Sugano, Naoki Koizumi, Katsumi Hattori, Chie Yoshino, Han Peng, Hao Chen	S21-P-17		

## S22. Lithosphere structure and dynamics: Plate boundary deformation at lithospheric scale

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Session: **S22-1**  
 Session title: Lithosphere structure and dynamics  
 Type: Oral  
 Date: Tuesday, August 1, 2017  
 Time: 10:30 - 12:00  
 Room: Room 401  
 Chairs: Rob Govers (Utrecht University)  
 Kevin Furlong (Penn State University)

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Time	Title	Program No.
10:30	<b>GPS Space Geodesy in Colombia, South America: Velocities and the construction of the Eastern Cordillera of the Colombian Andes</b> <u>Hector Mora-Paez</u> , Dave Mencin, Peter Molnar, Hans Diederix, Leonardo Cardona-Piedrahita, Yuli Corchuelo, Juan-Ramon Pelaez-Gaviria	S22-1-01
10:45	<b>LITHOSPHERIC STRUCTURE IN THE NORTHWEST SOUTH AMERICA FROM RECEIVER FUNCTIONS ANALYSIS</b> <u>Carlos Alberto Vargas Jimenez</u> , Gaspar Monsalve, Faustino Blanco, Esteban Poveda	S22-1-02

11:00	<b>Arc-arc collision structure in the southernmost part of the Kuril trench region -Results from integrated reanalyse</b> <u>Takaya Iwasaki</u> , Noriko Tsumura, Tanio Ito, Hiroshi Sato, Eiji Kurashimo, Naoshi Hirata, Kazunori Arita, Katsumi Noda, Akira Fujiwara, Susumu Abe, Shinsuke Kikuchi, Kazuko Suzuki	S22-1-03
11:15	<b>Bookshelf faulting in Iceland: Characteristic of oblique rifts and unstable transforms</b> <u>Pall Einarsson</u>	S22-1-04
11:30	<b>Potential for coincident megathrust and crustal earthquakes - an additional component of seismic hazard</b> <u>Kevin Furlong</u> , Matthew Herman	S22-1-05

Session: **S22-P**  
 Type: Poster  
 Date: Tuesday, August 1/ Wednesday, August 2, 2017  
 Time: 15:30 - 16:30  
 Room: Event Hall

Title	Program No.
<b>Cenozoic rifting and crustal dynamics controlled by Variscan paleoplate boundaries in the mantle lithosphere</b> <u>Vladislav Babuska</u> , Jaroslava Plomerova, Helena Munzarova	S22-P-01
<b>Thermomechanical modeling of tectonic inversion at the ocean-continent boundary of the North African margin (Algeria): possible initiation of subduction</b> <u>Abdelkarim Yelles Chaouche</u> , Carole Petit, Laetitia Le Pourhiet, Lamine Hamai, Abdesalam Abtout	S22-P-02

## IASPEI Education and Outreach

# S23. Geoscience and society

Session: **S23-1**  
 Session title: Geoscience and society I  
 Type: Oral  
 Date: Thursday, August 3, 2017  
 Time: 13:30 - 15:00  
 Room: Room 402  
 Chairs: Fuhsing Lee (Kyoto University)  
 Satoko Oki (Keio University)

Time	Title	Program No.
13:30	<b>Education and Outreach to Foreign Residents Living in Japan- the Importance and Roles of Multicultural Society Coordinators in Creating Systems for Disaster Risk Management Education for Foreign Residents</b> <u>Akiyoshi Kikuchi</u>	S23-1-01
13:45	<b>Global Dynamic Exposure and the OpenBuildingMap - Communicating Risk and Involving Communities</b> <u>Danijel Schorlemmer</u> , Thomas Beutin, Naoshi Hirata, Max Wyss, Fabrice Cotton, Karsten Prehn	S23-1-02
14:00	<b>The research of risk communication using Probabilistic Seismic Hazard Maps</b> <u>Tosei Nagamatsu</u> , Satoko Oki, Sumire Hirota	S23-1-03
14:15	<b>"L'Aquila Trial" is a trial of science?</b> <u>Kazuki Koketsu</u> , Satoko Oki, Alessandro Amato, Andrea Cerase	S23-1-04
14:30	<b>InSight/SEIS@Mars Educational program : Sharing the Seismic Discovery of Mars with a International Network of classes</b> <u>Philippe Lognonne</u> , Jean Luc Berenger, Anne Sauron, Paul Denton, Diane Carrer, Fatima Moujdi, John Taber, Tammy K Bravo, Jane Houston Jones, Philippe Labrot, Domenico Giardini, William. B. Banerdt, Jean Michel Martinuzzi	S23-1-05

Session: **S23-2**  
 Session title: Geoscience and society II  
 Type: Oral  
 Date: Thursday, August 3, 2017  
 Time: 16:30 - 18:00  
 Room: Room 402  
 Chairs: Satoko Oki (Keio University)  
 Fuhsing Lee (Kyoto University)

Time	Title	Program No.
16:30	<b>Action research towards effective disaster risk communication</b> <u>Katsuya Yamori</u>	S23-2-01 invited
17:00	<b>Extension of school education for disaster prevention actions over households –a case study of Mashima Elementary School-</b> Takao Iinuma, <u>Satoko Oki</u> , Risa Yamazaki, Shun Tagami	S23-2-02
17:15	<b>An Analysis on The Effects of the Implementation of Short Drills in Taking an Educational Approach to Disaster Prevention - A Case Study of Shirahata Elementary School-</b> <u>Risako Tokoro</u> , Tosei Nagamatsu, Mitsuhiro Matsumoto, Nobutomo Obata, Satoko Oki	S23-2-03
17:30	<b>Adapting the disaster knowledge for the local context – Practices of Tsunami disaster education in Zihuatanejo city, Mexico</b> <u>Genta Nakano</u> , Katsuya Yamori	S23-2-04
17:45	<b>Consideration of the challenges of residents with special needs in tsunami prone area in Japan through implementing indoor tsunami evacuation drills</b> <u>Takashi Sugiyama</u> , Katsuya Yamori	S23-2-05

Session: **S23-P**  
 Type: Poster  
 Date: Thursday, August 3/ Friday, August 4, 2017  
 Time: 15:30 - 16:30 / 15:00 - 16:00  
 Room: Event Hall

Title	Program No.
<b>Resilience Science for Resilient Society-Real time monitoring, Simulation research, Disaster education -Real time monitoring, Simulation research, Disaster education -Real time monitoring, Simulation research, Disaster education on Resilience Science -</b> <u>Yoshiyuki Kaneda</u> , Kazuhito Fujisawa, Chikako Isouchi	S23-P-01
<b>Outreach Programs for school children in India</b> <u>Srinagesh D.</u> , Satoko Oki, Rajendar Chadha	S23-P-02
<b>How do disaster museums communicate with the visitors?</b> <u>Hideyuki Shiroshita</u> , Yuto Oka	S23-P-03

**The Educational Potential of an Earthquake Museum in Taiwan - from the Viewpoint of Disaster Preparedness Education -**  
Yiwen Tsao S23-P-04

**How to Facing Disasters? The Meanings of Game-based Disaster Education Tools**  
Fuhsing Lee, Katsuya Yamori S23-P-05

**Effects of Disaster Structural Understanding on Residents' Behavioral Intention against Disaster -Case of Kanto Tohoku Heavy Rainfall Disaster(2015)-**  
Hideyuki Kobayashi, Atsushi Tanaka S23-P-06

**Practices of the disaster prevention education that incorporated the necessity of the kindergarten and nursery school**  
Nobuyuki Yamada, Kaoru Choji S23-P-07

**The Nicoya, Costa Rica, Mw=7.6 Earthquake :A very successful experience of Scientific and Community organization and Preparation**  
Shusuke Irapu, Marino Protti, Victor Gonzalez, Douglas Salgado S23-P-08

**Minna de Honkoku: online transcription project of historical earthquake documents**  
Yasuyuki Kano, Yuta Hashimoto, Ichiro Nakanishi, Junzo Ohmura, Tama Amano, Tomoyo Kuba, Haruno Sakai, Kazuyuki Ito, Yoko Odagi, Makiko Nishikawa, Haruo Horikawa, Kazuya Mizushima, Ryoichi Yasukuni, Munehisa Yamamoto S23-P-09

**ENGINEERING GEOLOGICAL APPROACHES TO DEAL WITH GEOHAZARD ASSESSMENT IN SEISMIC TERRITORIES**  
Mario Luigi Rainone, Giovanna Vessia, Carla Weaver S23-P-10

**Integrated Probabilistic Tsunami Hazard Assessment against possible tsunamis along Nankai Trough, Sagami Trough, and Japan Trench**  
Kenji Hirata, Hiroyuki Fujiwara, Hiromitsu Nakamura, Masaki Osada, Tsuneo Ohsumi, Nobuyuki Morikawa, Shin'ichi Kawai, Takahiro Maeda, Hisanori Matsuyama, Nobuhiko Toyama, Tadashi Kito, Yo'ichi Murashima, Yasuhiro Murata, Takuya Inoue, Ryu Saito, Shin'ichi Akiyama, Mariko Korenaga, Yuta Abe, Norihiko Hashimoto, Tomoya Hakamata S23-P-11

**What was the difference of local people between the 2016 Kumamoto earthquake in Japan and the 2009 L'Aquila earthquake in Italy?**  
Megumi Sugimoto, Silvia Peppoloni, Yandejia Song S23-P-12

**S24.**  
**Methods and instruments of experimental geothermics – application and recent evolution**

Session: **S24-1**  
 Session title: Methods and instruments of experimental geothermics - application and recent evolution I  
 Type: Oral  
 Date: Thursday, August 3, 2017  
 Time: 16:30 - 18:00  
 Room: Room 503  
 Chairs: Andrea Foerster (Helmholtz Centre Potsdam GFZ German Research Centre for Geosciences)  
 Yuri Popov (Skolkovo Institute of Science and Technology)

Time	Title	Program No.
16:30	<b>Thermal properties of mud-dominant sediment from the Joetsu Basin in the eastern margin of the Japan Sea</b> <u>Shusaku Goto</u> , Makoto Yamano, Sumito Morita, Toshiya Kanamatsu, Akihiro Hachikubo, Satsuki Kataoka, Manabu Tanahashi, Ryo Matsumoto	S24-1-01
16:45	<b>Laboratory measurements of rock thermal conductivity and diffusivity by transient divided bar and pulsed needle probe methods</b> Thue S. Bording, Soeren B. Nielsen, <u>Niels Balling</u>	S24-1-02
17:00	<b>Thermal petrophysics in application to hydrocarbon reservoir investigations: Current state of art</b> <u>Yuri Popov</u> , Evgeny Popov, Evgeny Chekhonin, Denis Gorobtsov	S24-1-03
17:15	<b>A new probabilistic framework to estimate the information content of industrial bottom-hole temperature data: A case study using the Australian OzTemp dataset</b> <u>Marcus Haynes</u>	S24-1-04
17:30	<b>In-Situ Optical Scanning</b> <u>David Sauer</u> , Moh'd Amro, Steffen Wagner, Frederick Rose	S24-1-05

Session: **S24-2**  
 Session title: Methods and instruments of experimental geothermics - application and recent evolution II  
 Type: Oral  
 Date: Friday, August 4, 2017  
 Time: 08:30 - 10:00  
 Room: Room 503  
 Chairs: Yuri Popov (Skolkovo Institute of Science and Technology)  
 Andrea Foerster (Helmholtz Centre Potsdam GFZ German Research Centre for Geosciences)

Time	Title	Program No.
08:30	<b>The structure of free thermal convection flows in water filled borehole inferred from a laboratory experiment</b> <u>Dmitry Demezhko</u> , Bogdan Hatskevich, Mansur Mindubaev	S24-2-01
08:45	<b>Geothermal field under development: monitoring using unmanned aerial vehicle (UAV)</b> <u>Sergey Cherkasov</u> , Anvar Farkhutdinov, Arbi Shaipov	S24-2-02
09:00	<b>Determination of formation equilibrium temperature and geothermal gradient from temperature measurements in production wells drilled in oil and gas fields</b> Rim Valiullin, Ayrat Ramazanov, <u>Guzel Vakhitova</u> , Ruslan Akchurin, Yuri Popov	S24-2-03
09:15	<b>Long-term measurement of 1m-depth geo-temperature and its relationship with ambient temperature change</b> <u>Osamu Matsubayashi</u> , Sachio Ehara	S24-2-04
09:30	<b>Long-term observations of pressure, temperature and flow rate for deep-sea hydrothermal fluid at the middle Okinawa Trough</b> <u>Yuka Masaki</u> , Tatsuo Nozaki, Masayuki Watanabe, Tomokazu Saruhashi, Masanori Kyo, Noriaki Sakurai, Takahiro Yokoyama, Keita Akiyama, Lena Maeda, Hidenori Kumagai	S24-2-05

Session: **S24-P**  
 Type: Poster  
 Date: Thursday, August 3/ Friday, August 4, 2017  
 Time: 15:30 - 16:30 / 15:00 - 16:00  
 Room: Event Hall

Title	Program No.
<b>Thermal properties of sedimentary rocks for the Tarim Basin, northwest China</b> <u>Shaowen Liu</u> , Xianglan Li, Changge Feng	S24-P-01
<b>Repeated borehole temperature logs: climate or anthropogenic impact?</b> <u>Vladimir Cermak</u> , Petr Dedecek, Jan Safanda, Milan Kresl	S24-P-02

**Determination of formation equilibrium temperature from unsteady temperature measurements in wells under drilling** S24-P-03  
 Ruslan Akchurin, [Ayrat Ramazanov](#), Rim Valiullin, Yuri Popov

**Temperature and heat-flow calculations: about the benefit of well-log based thermal-conductivity profiles** S24-P-04  
 Sven Fuchs, Niels Balling, [Andrea Foerster](#)

**Geotherms of the continental crust: ambiguity from experimental P-T correction to thermal conductivity** S24-P-05  
[Andrea Foerster](#), Sven Fuchs, Ben Norden, Hans-Juergen Foerster

**Thermal conductivity variation of granites at elevated temperatures** S24-P-06  
[Labani Ray](#), N. Narshimha Naidu, Varun Kumar, Nishu Chopra

**FEATURES OF THE TEMPERATURE RECOVERY IN WELL AFTER STOP OF INJECTION/PRODUCTION IN CASE OF RESERVOIR WITH HUDRAULIC FRACTURING** S24-P-07  
 Artyom Sharipov, [Ramil Sharafutdinov](#), Rim Valiullin, Ayrat Ramazanov

**ACQUISITION OF INTEGRATED PETROPHYSICAL DATA FROM THERMAL CORE LOGGING AND THERMAL CORE PLUG INVESTIGATION FOR USINSKOYE HEAVY OIL FIELD** S24-P-08  
 Evgeny Popov, [Yuri Popov](#), Evgeny Chekhonin, Egor Savelev, Ekaterina Nozdryakova, Irina Gurbatova

**Effect of water saturation on the electrical impedance and elastic wave velocity of geothermal reservoir rocks** S24-P-09  
[Kazuki Sawayama](#), Keigo Kitamura, Yasuhiro Fujimitsu

## S25. Development and application of geothermal databases

Session: **S25-1**  
 Session title: Development and application of geothermal databases  
 Type: Oral  
 Date: Thursday, August 3, 2017  
 Time: 13:30 - 15:00  
 Room: Room 503  
 Chairs: Shaopeng Huang (Xi'an Jiaotong University / University of Michigan)  
 Valiya Hamza (National Observatory)

Time	Title	Program No.
13:30	<b>Reference framework for crustal geotherms, with constraints based on seismic data for the lower crust</b> <a href="#">Valiya Hamza</a> , Carlos Alexandrino	S25-1-01 invited
14:00	<b>Thermal data beneath in and around Japan: What we know and do not yet know</b> <a href="#">Akiko Tanaka</a>	S25-1-02
14:15	<b>Mapping the continental surface temperature of Australia: the surface boundary condition for conductive thermal models</b> <a href="#">Marcus Haynes</a> , Frank Horowitz, Malcolm Sambridge, Ed Gerner, Graeme Beardsmore	S25-1-03
14:30	<b>Energy Budget of the Global Lands in the Course of Recent Climate Change</b> <a href="#">Shaopeng Huang</a>	S25-1-04
14:45	<b>Development of geothermal studies in Uzbekistan</b> <a href="#">Irina Sidorova</a>	S25-1-05

Session: **S25-P**  
 Type: Poster  
 Date: Thursday, August 3/ Friday, August 4, 2017  
 Time: 15:30 - 16:30 / 15:00 - 16:00  
 Room: Event Hall

Title	Program No.
<b>Temperature and heat flux changes at the base of Laurentide Ice Sheet inferred from geothermal data (evidence from province of Alberta, Canada)</b> <a href="#">Dmitry Demezhko</a> , Anastasia Gornostaeva, Jacek Majorowicz, Jan Safanda	S25-P-01

<b>Evaluating methods and uncertainties in the inversion of downhole temperature data for palaeoclimate studies, Australian examples</b> <u>Sandra McLaren</u> , Roger Powell	S25-P-02
<b>A geothermal resource assessment based on GIS analysis of multiple parameters for the Guanzhong Basin, NW China</b> Yilei Xu, Tingting Ke, <u>Shaopeng Huang</u> , Ruyang Yu, Xiaoyin Tang	S25-P-03
<b>Terrestrial Heat flow and 1D Geoelectric Model of the Baiyinchagan Sag, Erlian Basin, Northern China</b> <u>Jiong Zhang</u> , Rao Fu, Yongshui Zhou, Yi Wang, Di Hu, Yinhui Zuo, Shaopeng Huang, Xiaoyin Tang, Ruyang Yu	S25-P-04

09:15 <b>Reconstruction of recent 6Ma thermal structure seaward of updip limit of Nankai seismogenic zone off Kumano inferred from IODP NanTroSEIZE geothermal data and time-dependent numerical model</b> <u>Masataka Kinoshita</u> , Eiichiro Araki, Toshinori Kimura, Achim Kopf, Demian Saffer, Sean Toczko	S26-1-04
09:30 <b>Numerical Simulation of the Geothermal Effect of the Millennium Eruption of the Changbaishan Tianchi (Mt. Paektu) Volcano at Sino-North Korean Border</b> <u>Wentao Duan</u> , Ting Ke, Shaopeng Huang, Xiaoyin Tang	S26-1-05

## S26. Exploring connections between heat flow and tectonics

Session: **S26-1**  
Session title: Exploring connections between heat flow and tectonics I  
Type: Oral  
Date: Thursday, August 3, 2017  
Time: 08:30 - 10:00  
Room: Room 503  
Chairs: Valiya Hamza (National Observatory - ON/MCTI)  
Masataka Kinoshita (University of Tokyo)

Time	Title	Program No.
08:30	<b>Shallow crustal heat flow and heat production inversion</b> <u>Marcus Haynes</u> , Rhys Hawkins, Malcolm Sambridge, Graeme Beardsmore	S26-1-01
08:45	<b>Magma underplating at crust mantle interphase as the source of anomalous heat flow in passive continental margins</b> <u>Valiya Hamza</u> , Fabio Vieira	S26-1-02
09:00	<b>Two-dimensional thermal modeling associated with subduction of the Philippine Sea plate beneath southern Kyushu, Japan</b> <u>Nobuaki Suenaga</u> , Shoichi Yoshioka, Takumi Matsumoto	S26-1-03

Session: **S26-2**  
Session title: Exploring connections between heat flow and tectonics II  
Type: Oral  
Date: Thursday, August 3, 2017  
Time: 10:30 - 12:00  
Room: Room 503  
Chairs: Makoto Yamano (The University of Tokyo)  
Yoshifumi Kawada (Tohoku University)

Time	Title	Program No.
10:30	<b>Heat flow distribution along the Nankai Trough floor correlated with the crustal structure of the incoming oceanic plate</b> <u>Makoto Yamano</u> , Yoshifumi Kawada, Mikiya Yamashita	S26-2-01
10:45	<b>Modelling three-dimensional hydrothermal heat transport around the Nankai Trough</b> <u>Yoshifumi Kawada</u> , Makoto Yamano, Xiang Gao	S26-2-02
11:00	<b>Curie Depth Point of the Iberian Microplate. A thermal, compositional and tectonic perspective of its evolution</b> Juvenal Andres, Ignacio Marzan, David Marti, Imma Palomeras, Puy Ayarza, <u>Ramon Carbonell</u>	S26-2-03
11:15	<b>An attempt to relate heat flow density, gravity, magnetic, geoid, elevation and seismic data in the SW of the Iberian Peninsula trying to obtain lithosphere thickness and information related with African and Iberian plate borders</b> <u>Maria Rosa Duque</u>	S26-2-04
11:30	<b>Seismogenic Layer within the Crust beneath Japanese Islands on the Japan Sea Side – application of JUICE catalog</b> <u>Tomoko E. Yano</u> , Makoto Matsubara	S26-2-05

Session: **S26-P**  
 Type: Poster  
 Date: Thursday, August 3/ Friday, August 4, 2017  
 Time: 15:30 - 16:30 / 15:00 - 16:00  
 Room: Event Hall

Title	Program No.
<b>Heat flow map of the Czech Republic, revisited</b> Petr Dedecek, Vladimir Cermak, Jan Safanda, Milan Kresl	S26-P-01
<b>Heat flow and tectono-thermal histories in cratons of China</b> Lijuan He	S26-P-02
<b>Indications of "hot belts" along passive continental margin of Brazil</b> Fabio Vieira, Valiya Hamza	S26-P-03

11:15	<b>Subsurface temperature modelling with inverse parameter optimisation</b> Niels Balling, Soeren E. Poulsen, Sven Fuchs, Soeren B. Nielsen	S27-1-04 invited
11:30	<b>Three-Dimensional (3-D) Attenuation Tomography in "FF" Geothermal Field, Indonesia</b> Fadli Faturrahman Rusli, Andri Dian Nugraha, Mohammad Rachmat Sule	S27-1-05 invited
11:45	<b>Magnetotelluric surveys to delineate shallow reservoir of low-enthalpy geothermal systems in Thailand</b> Puwis Amatyakul, Songkhun Boonchaisuk, Chatchai Vachiratienchai, Tawat Rung-Arungwan, Kriangsak Pirarai, Aranya Fuangswasdi, Weerachai Siripunvaraporn	S27-1-06 invited

## S27. Geothermal energy: Ground source heat pump, hydrothermal system, and hot dry rocks

Session: **S27-P**  
 Type: Poster  
 Date: Thursday, August 3/ Friday, August 4, 2017  
 Time: 15:30 - 16:30 / 15:00 - 16:00  
 Room: Event Hall

Title	Program No.
<b>Evaluation of geothermal energy potential for heating/cooling of the Xi'an Jiaotong University new campus in Xixian, Shaanxi, China</b> Tingting Ke, Yilei Xu, Shaopeng Huang, Xiaoyin Tang, Wentao Duan	S27-P-01
<b>RINGEN - Research Infrastructure for Geothermal ENergy</b> Petr Dedecek, Vladimir Cermak, Jan Safanda, Tomas Fischer, Antonin Tym	S27-P-02

Session: **S27-1**  
 Session title: Geothermal energy: Ground source heat pump, hydrothermal system, and hot dry rocks  
 Type: Oral  
 Date: Friday, August 4, 2017  
 Time: 10:30 - 12:00  
 Room: Room 503  
 Chairs: Makoto Taniguchi (Research Institute for Humanity and Nature)  
 Hideki Hamamoto (Center for Environmental Science in Saitama)

Time	Title	Program No.
10:30	<b>The efficiency of Borehole heat exchanger system by regional differences</b> Hideki Hamamoto, Yuji Miyashita, Philipp Blum, Alexander Limberg, Makoto Taniguchi	S27-1-01 invited
10:45	<b>Assessment of efficiency and potential of a ground source heat pump system under geological complexity in Japan</b> Yoshitaka Sakata, Takao Katsura, Katsunori Nagano, Atsunao Marui	S27-1-02 invited
11:00	<b>Alternative use of subsurface energy as heat pump or groundwater</b> Makoto Taniguchi, Hideki Hamamoto	S27-1-03 invited