

Schedule

WEDNESDAY 5th APRIL

13:00 – 14:00

REGISTRATION

14:00 – 14:15

Welcome: Dmitry Storchak, Elizabeth Entwistle and Jennifer Weston (ISC)

Session 1: The rise of induced seismicity Chaired by: Domenico Di Giacomo		
14:15	Torsten Dahm , S. Hainzl & S. Cesca	Invited: The weal and woe of induced seismicity
14:45	† Miles Wilson , G. Foulger, R. Davies, J. Gluyas, et al.	Global review of induced and triggered earthquakes
15:00	Antonio Villaseñor , R.B. Herrmann, B. Gaité & A. Ugalde	Focal depths and mechanisms of induced earthquakes in the 2013 seismic sequence near the CASTOR Underground Gas, northeast coast of Spain
15:15	Ian Main , X. Li & A. Jupe	Induced seismicity at the UK 'Hot Dry Rock' test site for geothermal energy production: a new mechanism
15:30	Anna Horleston & D. Hawthorn	Anthropogenic noise on temporary seismic networks: implications for monitoring arrays in the UK
15:45	Richard Lockett , A. Butcher & B. Baptie	Local magnitudes at short distances

16:00 – 16:30 COFFEE

Session 2: Investigating unusual signals Chaired by: David Bowers		
16:30	Steven Gibbons	Invited: Accurate seismic event location: A question of context
17:00	Kostas Lentas , I. Bondár, E. Bergmann & E.R. Engdahl	Reference Event List (GT) for monitoring purposes
17:15	Anton Ziolkowski	Yields, source time functions and depths of North Korean announced nuclear tests
17:30	Neil Wilkins , J. Wookey & N. Selby	Static corrections to improve signal-to-noise ratio for forensic seismology at IMS arrays
17:45	Jennifer Stevanovic , N. Teanby, J. Wookey, N. Selby, et al.	Bolide airbursts as a seismic source for the 2018 Mars InSight mission

18:00 – 19:00 ICEBREAKER

3Bs, Reading Town Hall

THURSDAY 6th APRIL

Session 3: Passive sources and sensitive signals

Chaired by: Elizabeth Entwistle

08:30	Eleonore Stutzmann , M. Meschede, V. Farra, et al.	Invited: Frequency dependent microseism sources
09:00	George Taylor , S. Rost, G. Houseman & G. Hillers	Upper crustal structure of the North Anatolian Fault Zone from ambient seismic noise surface wave tomography
09:15	Benjamin Schwarz , A. Bauer & D. Gajewski	Using diffractions as passive source wavefields: A travelttime moveout perspective
09:30	Anna Stork , C. Allmark, A. Curtis, et al.	The feasibility of detecting CO2 leaks using passive seismic monitoring
09:45	Jonathan Singh , I. Main, A. Curtis, A. Cartwright-Taylor, et al.	Seismic Signals from Digital Rocks
10:00	Alan Baird , J.-M, Kendall & J. Budge	Discriminating between fractures and fabrics in a highly anisotropic shale using shear-wave splitting

10:15 – 10:45 COFFEE AND POSTERS (3Bs)

Session 4: Understanding Earth's faults

Chaired by: Abdelkarim Yelles Chaouche

10:45	Tom Mitchell	Invited: Earthquake fracture damage and healing in the seismic cycle
11:15	† Christopher Harbord , S. Nielsen, N. De Paola & R. Holdsworth	Frictional instability of rough faults
11:30	Jessica Hawthorne , A. M. Thomas & J-P. Ampuero	Estimating the rupture extent of low frequency earthquakes near Parkfield, CA
11:45	Simone Mancini & M. Segou	Physics-based modelling of the 2016 Amatrice (central Italy) earthquake sequence
12:00	Ragnar Slunga	Estimating the complete stress tensor field from microearthquake observations

12:15 – 13:15 LUNCH AND POSTERS (3Bs)

Session 5: How hazardous?

Chaired by: Dmitry A. Storchak

13:15	Roland Roberts , R. Bóðvarsson, O. Gudmundsson, B. Lund, et al.	The Swedish National Seismological Network: Hazard assessment in a low-seismicity intraplate area
13:30	Gloria Senfaute	Probabilistic seismic hazard assessment in low-to-moderate seismicity regions: outcomes from the SIGMA research program
13:45	Lizhong Zhang , M.J. Werner & K. Goda	A time-dependent seismicity model for south-western British Columbia, Canada
14:00	Emmanuel Viallet , N. Humbert & P. Mottier	Updating of a PSHA based on a Bayesian inference with historical macroseismic intensities
14:15	Amy Gilligan , N. Rawlinson, F. Tongkul & R. Stephenson	Developing a seismic hazard model for Sabah, East Malaysia, using seismic and geodetic data
14:30	Domenico Di Giacomo , E.R. Engdahl, D.A. Storchak & J. Harris	The ISC-GEM Global Instrumental Earthquake Catalogue (1900-2013) for hazard purposes

14:45 – 16:45

COFFEE & POSTER SESSION (3Bs)

Session 6: Catalogues: Power and completeness

Chaired by: Steven Gibbons

16:45	Yuzo Ishikawa	Difficulty of the determination of hypocenters in early 20 century
17:00	Raul Castro , J.M. Stock, E Hauksson & R.W. Clayton	Seismicity ($M > 3.0$) in the period between 2002-2014 and active tectonics in the Gulf of California, Mexico
17:15	Pierre Arroucau , J. Grannell, S. Lebedev, C. Bean, et al.	New earthquake detections in Ireland from waveform template matching by cross-correlation
17:30	Marleine Brax , C. Beauval, P. Albini & R. Jomaa	An earthquake catalog for seismic hazard assessment in Lebanon
17:45	Dmitry A. Storchak , J. Harris & D. Di Giacomo	The ISC Datasets and Services

18:30 – Meet to walk over to conference dinner

19:00 – 00:00 CONFERENCE DINNER @ Crowne Plaza, Reading
Invited Talk by Roger Musson

FRIDAY 7th APRIL

Session 7: Imaging the Earth at all scales Chaired by: Karin Sigloch		
08:45	Maria Tsekhmistrenko , K. Sigloch & K. Hosseini	Multifrequency measurements of P waves on ocean bottom seismometers in the Indian Ocean
09:00	Keith Priestley & A. Gilligan	Variations in lithospheric structure across the Indo-Eurasian collisional belt
09:15	James Hammond	Evidence for partial melt in the crust beneath Mt. Paektu/Changbaishan
09:30	Andy Nowacki & S. Rost	Invited: A low-velocity pipe-like structure at the base of the mantle beneath Hawaii inferred from focussing of seismic waves
10:00	Paula Koelmeijer , B. Schuberth, R. Davies & J. Ritsema	Constraints on the presence of post-perovskite in Earth's lowermost mantle from tomographic-geodynamic model comparisons
10:15	Kasra Hosseini & K. Sigloch	Global seismic tomography using teleseismic and core-diffracted body waves

10:30 – 11:00 COFFEE

Session 8: Dealing with big data Chaired by: Lonn Brown		
11:00	Tarje Nissen-Meyer , K. Leng, M. van Driel, et al.	Invited: Appraising Occam: On the interaction of seismic waves with structure
11:30	† Kuangdai Leng , T. Nissen-Meyer, K. Hosseini, et al.	Global wavefield modeling in 3-D crustal structures
11:45	Nicholas Rawlinson	Seismic tomography: From damped least squares to transD
12:00	Natalia Poiata	Locating seismic sources with an automated multi-scale array-based detection and location scheme
12:15	Karin Sigloch & S.C. Stähler	Fully probabilistic seismic source inversion
12:30	Jennifer Weston , E.R. Engdahl, J. Harris, D.A. Storchak & D. Di Giacomo	ISC-EHB: Reconstructing the EHB earthquake database

12:45 – 12:50 Closing Remarks

Poster Schedule for Thursday 6th April

Poster No	Authors	Title
Session 1: The rise of induced seismicity		
1	Antony Butcher , J. Verdon, R. Luckett, et al.	Magnitude discrepancies and characterisation of mining events at New Ollerton, UK
Session 2: Investigating unusual signals		
2	Ross Heyburn & D. Bowers	Seismic and Hydroacoustic Observations from Underwater Explosions off the East Coast of Florida
3	Sheila Peacock & J. Young	AWE Blacknest archive of seismic recordings of presumed underground explosions, 1964- 1996
4	Sheila Peacock	Maximum-likelihood magnitudes of announced underground nuclear tests by the Democratic People's Republic of Korea, 2006-2016
5	Irina Gabsatarova , A.A. Malovichko & O. E. Starovoit	Seismic monitoring of the North Korea nuclear test site by Russian seismic stations
Session 3: Passive sources and sensitive signals		
6	Abderrahmane Haned , E. Stutzmann, M. Schimmel, et al.	Global tomography using seismic hum
7	Laura Ermert , K. Nishida, K. Sager, et al.	Mapping primary microseism sources in and around the Sea of Japan
8	† Emma Chambers , N. Harmon, D. Keir, et al.	Using ambient noise to image melt in the Northern East African Rift System
9	Emily Crowder , N. Rawlinson & D. Cornwell	Seismic imaging without a source: towards cost effective and low environmental impact hydrocarbon exploration
10	Emma Smith, A.F. Baird , J.M. Kendall, et al.	Ice fabric in an Antarctic ice stream interpreted from seismic anisotropy
Session 4: Understanding Earth's faults		
11	Stuart Nipress , R. Heyburn & R. Walters	Relocating earthquake clusters across Iran
12	Joshua Williams , J. Hawthorne, S. Rost, et al.	Stress drops for the $M \geq 4.0$ earthquake catalogue of the Blanco Oceanic Transform Fault
13	† Roseanne Clement , I. Main & A. Bell	Do large earthquakes nucleate as a result of repeating earthquake sequences?
14	† Ghizlane Bouskri , M. Elabbassi, A. Ammar, et al.	Seismological and seismic reflection imaging of active faults and their tectonic behavior in the Northern Moroccan margin
15	Assia Dib , M. Bezzeghoud, B. Caldeira, et al.	Seismicity along the seismogenic zone of Algarve region (southern Portugal).
16	Kostas Lentas & D.A. Storchak	Towards routine determinations of earthquake focal mechanisms obtained from P-wave first motion polarities

17	Mohamed El Messaoud Derder , P. Robion, S. Maouche, et al.	Neotectonic model of northern Algeria: Blocks tectonic rotations revealed by new paleomagnetic data
18	Mohamed Salah Boughacha	Development of an interactive software to locate an epicenter by a graphical method
19	Tukezban Hasanova & J. Imamalieva	Seismic waves in elastic environments during the motion of cylindrical inclusion
Session 5: How hazardous?		
20	Ilaria Mosca	Integrating outcomes from probabilistic and deterministic seismic hazard assessment
21	Farida Ousadou , N. Benbelkacem & A. Ayadi	Empirical relation scaling I_0 , M_d and M_w for Algeria towards a homogenization of the seismic catalogue
22	Nato Jorjiashvili	Local soil effects on the Ground Motion Prediction model for the Racha region in Georgia
23	Irmela Zentner, G. Senfaute & Ch. Durouchoux	Analysis of different statistical methods to estimate and represent M_{max} in PSHA based on the truncated GR model
24	Laouami Nasser	Spectral Ground-motion Predictive Model for Algeria considering site effect based HVSR
25	Gherboudj Faouzi & L. Nasser	Site specific PSHA application with scalar and vector approach
26	Nouredine Mezouar , A. Messaoudi & M. Hadid	The use of real accelerograms as input to dynamic analysis
Session 6: Catalogues: Power and completeness		
27	Tanja Fromm & A. Ecksteller	Permanent and temporary seismology at Neumayer III, Antarctica
28	Tamara Jesenko & M. Živčić	Modernisation of Slovenian seismic network: progress or just collection of data
29	Roland Roberts , R. Bödvarsson, O. Gudmundsson, et al.	Seismological research in Sweden: Current status and some highlights.
30	Domenico Di Giacomo , E. Ayres & D.A. Storchak	The ISC Event Bibliography: An update
31	Lonn Brown , J. Harris, K. Lieser, et al.	The rebuild of the ISC bulletin
32	Edith Korger & K. Lieser	Advancing the ISC Bulletin with the data from temporary seismic deployments
Session 7: Imaging the Earth at all scales		
33	Jennifer Jenkins , R. Green, S. Cottaar, et al.	Constraints on Icelandic Crustal structure from Receiver function analysis
34	Kherroubi Abdelaziz , I. Koulakov, A. Yelles, et al.	The Boumerdes (Algeria) earthquake of May 21st, 2003 (M_w : 6.8): Tomographic inversion

35	† Afsaneh Mohammadzaheri & K. Sigloch	Multi-frequency Inversion of P-waves under America
36	† Raffaele Bonadio , P. Arroucau, S. Lebedev, et al.	Surface-wave tomography of Ireland, Britain and surroundings
37	Mania Sabouri & M.R. Gheitanchi	Attenuation of seismic waves in southeast Iran (Gheshm region)
38	Harriet Godwin , K. Leng, J. Gonzalez Santana, et al.	Seismological studies of the multi-scale core-mantle boundary landscape
39	Eoghan Totten , K. Sigloch, T. Nissen Meyer, et al.	Slab behaviour in the mantle transition zone
40	Agnieszka Plonka & A. Fichtner	Resolvability of regional density structure - a principal component approach to resolution analysis
41	Elodie Kendall , A Ferreira & C. lithgow-Bertelloni	Waveform modelling of 3-D seismic anisotropy in the Earth's mantle
42	Sophie Lambotte & C. Zaroli	Global tomography using normal-mode data: a synthetic-case investigation
43	Tak Ho, K. Priestley & E. Debayle	A new global upper mantle radial anisotropic model from multi-mode surface wave observations
Session 8: Dealing with big data		
44	Arjun Datta, K. Priestley , C. Chapman, et al.	Surface wave mode conversion due to lateral heterogeneity and its impact on waveform inversions
45	Christophe Zaroli	Global seismic tomography using Backus-Gilbert inversion