British Seismology Meeting 2019
4th- 6th September
Informatics Forum, Edinburgh, UK

Wednesday 4th September

9:00 – 11:00

REGISTRATION and POSTER MOUNTING

11:00 – 11:15

WELCOME: Anton Ziolkowski and Dmitry Storchak

Session 1: Human-Induced Seismicity		
11:15	**Stephen Myers**, M. E. Pasyanos, G. Ichinose, D. A. Dodge, S. R. Ford, R. J. Mellors, W. R. Walter	KEYNOTE: Seismological Analysis of the Announced DPRK Nuclear Tests
11:45	**Corinna Roy**, Xi. Zhang, A. Nowacki, A. Curtis and B. Baptie	Robust uncertainties in local earthquake magnitudes: Implications for traffic light systems for induced seismicity
12:10	**Stephen Hicks**, J. Verdon, B. Baptie, R. Luckett, Z. Mildon, T. Gernon	A shallow earthquake swarm close to hydrocarbon activities: discriminating between natural and induced causes for the 2018–19 Surrey, UK earthquake sequence
12:35	**Anton Ziolkowski**	Source Time Functions of North Korean Nuclear Tests

13:00 – 14:00 LUNCH

Session 2 Deep Mantle/Volcano Seismology/Rock Physics		
14:00	**Joseph P. R. Asplet**, J. Wookey, and J-M. Kendall	Discrepant SKS-SKKS shear-wave splitting suggests a post-perovskite province in D'' beneath the Eastern Pacific
14:25	**Atalay Ayele**	Magmatic rifting and seismicity in Afar and northern Main Ethiopian Rift (MER)
14:50	**Alexis Cartwright-Taylor,** I. G. Main, I. B. Butler, F. Fusseis, A. King and M. Flynn	How Heterogeneity Affects the Microcrack Network Evolution in Deforming Rocks Revealed by 4D In-Situ X-Ray Microtomography.
15:15	**G. Papageorgiou**, Z. Jin, I. H. Falcon-Suarez, M. Chapman, A. Best	Seismic propagation and anisotropy in partially saturated fractured rocks.

15:40– 16:10 BREAK AND POSTERS

Session 3: Data and Software		
16:10	**Dmitry A. Storchak**, J. Harris, K. Lentas, L. Brown, D. Di Giacomo and P. Franek	Recent ISC Data and Service Releases
16:35	**Richard Luckett**	Seismic Data from the UK Geoenergy Observatories
17:00	**Burak Sakarya**, E.R. Engdahl, C. G. Gkarlaouni, J. Harris, D. Di Giacomo and D A. Storchak	The refined ISC-EHB dataset for 1964 to 2016

17:30 – 19:00 ICEBREAKER

Thursday 5th September

Session 4: Lithosphere Imaging 1		
09:00	**Stephen P. Hicks**, L. Bie, N. Harmon, C. Rychert, Andreas Rietbrock, B. Maunder, S. S. Wei, S. Goes, G. Cooper, and the rest of the VoiLA consortium group	KEYNOTE: Seismic imaging of volatile cycling in the Lesser Antilles subduction zone
09:30	**Emma L. Chambers**, N. Harmon, D. Keir, R. Gallacher and C. A. Rychert	Imaging melt movements from the mantle to the crust using a joint inversion of Rayleigh waves and ambient noise tomography
09:55	**David G. Cornwell**, S. Rost, D. A. Thompson, G. Houseman, G. Taylor, E. Papaleo, A. Williamson, J. O'Flaherty, S. A. Poyraz, M. Kahraman, U. Teoman, N. Turkelli, L. Gulen, M. Utkucu	Lithospheric structure, anisotropy and seismicity of the active North Anatolian Fault, Turkey
10:20	**Itahisa González Álvarez**, S. Rost, A. Nowacki and Neil Selby	Lithospheric Scattering and Structure from Teleseismic P Waveforms

10:45 – 11:15 BREAK AND POSTERS

Session 5: Lithosphere Imaging 2		
11:15	**Amy Gilligan**, D. G. Cornwell, N. Rawlinson, J. Jenkins, S. Pilia, F. Tongkul,	KEYNOTE: Understanding Post-Subduction Tectonics: Constraints from the North Borneo Orogeny Seismic Survey (nBOSS)
11:45	**Omry Volk**, R. S. White, S. Pilia, R. Green, J. Maclennan and N. Rawlinson	Crustal Flow and Formation in Iceland from Radial Anisotropy
12:10	**E. Crowder**, N. Rawlinson, D. Cornwell, C. Sammarco, E. Galleti, A. Curtis	Ambient noise tomography of the North Sea and surrounding landmasses

12:35 – 13:40 LUNCH

Session 6: Near Surface Seismology		
13:40	**John Brittan** and Ian Jones	KEYNOTE: Contemporary Exploration Seismic Imaging – Where we are and what comes next
14:10	**Andrew Curtis**, S. Earp, X. Zhang, and S. de Ridder	Near-Real Time Nonlinear Probabilistic Ambient Noise Tomography
14:35	**Calum Macdonald**, M. Chapman, G. Bayrakci, J.M. Bull, T.A. Minshull and G. Provenzano	Results from a multi-frequency wide-angle seismic experiment at an active pockmark complex in the northern North Sea
15:00	**Zhihua Cui**, D. Iacopini and I. Lecomte	Novel seismic forward modelling of the seal bypass structure: an example from the Loyal field (Scotland, UK)

15:25 – 16:00 BREAK AND POSTERS

Thursday 5th September

Session 7: Earthquake Hazard/Earthquake Location		
16:00	**Margarita Segou**	KEYNOTE: Advances in Earthquake Forecasting
16:30	**Gemma Cremen**, M. J. Werner and B. Baptie	Understanding Induced Seismicity Hazard Related to Shale Gas Exploration in the UK
16:55	**Timothy J. Craig**	A (semi-)automatic approach for the determination of accurate source depths for moderate-magnitude earthquakes using teleseismic data.
17:20	**Tom Garth**, K. Sigloch and D. Storchak	Full waveform constraints on earthquake depth, mechanism and source time function and their associated uncertainties.

17:45 – 18:45 Drinks and Posters

18:45 Meet to walk over to Conference Dinner

19:00 CONFERENCE DINNER @ Surgeon's Hall, Edinburgh

With invited speech

Roger Musson: Seismology was invented in Edinburgh

Friday 6th September

Session 8: Earthquake Seismology 1		
09:00	**Frederik Tilmann (Invited**) with G. Asch, S. Barrientos, J. Bedford, M. Gassenmeier, J. Münchmeyer, O. Oncken, M. Moreno, B. Schurr, C. Sens-Schönfelder, C. Sippl, H. Soto, F.Vera, J.-P. Vilotte	The Value of Patience—a Review of a Decade of Observations of the North Chilean Subduction with the Integrated Plate boundary Observatory Chile (IPOC)
09:30	**Mario Arroyo** and L. Linkimer	The Gutenberg-Richter law and completeness of the RSN earthquake catalog, Costa Rica
09:55	**Abdelhakim Ayadi**, K. Roumane, A. Harbi and F. Ousadou	Algerian seismic catalogue: from archaeological and macroseismic observations
10:20	**Tae-Kyung Hong**, J. Lee, S. Park, I. Kim, and W. Kim	Induction of Crustal Seismic Anisotropy and Seismicity Change in Intraplate Region After a Regional Megathrust Earthquake

10:45 – 11:15 BREAK AND POSTERS

Session 9: Earthquake Seismology 2		
11:15	**Felix Halpaap**, S. Rondenay, A. Perrin, S. Goes, L. Ottemöller, F. Millet, H. Austrheim, R. Shaw and T. Eeken	Earthquakes track subduction fluids from slab source to mantle wedge sink
11:40	**Tae-Kyung Hong**, E. Choi, J. Lee, S. Park, I. H. Baek, and W. Kim	A different view on the 15 November 2017 Mw5.5 Pohang earthquake in South Korea
12:05	**Supriyanto Rohadi**, Y. Pradana, T. Azhar, S. Pakpahan, B. Sunardi, and D. Karnawati	Seismicity Data Analysis: Study Case Historical and Recent Earthquake in Indonesia
12:30	**N. Rawlinson**, L. T. White, F. Waldhauser, B. Hejrani, D. A. Thompson and H. Tkalčić	Earthquake swarms in the mantle wedge

12:55 – 13:00 CLOSING REMARKS

BSM2019 Posters

Session 1: Human-Induced Seismicity		
1	**Sheila Peacock**, N. Selby and D. Bowers	High-frequency Rayleigh Waves from Announced Underground Nuclear Explosions by the Democratic People's Republic of Korea
Session 2: Deep Mantle/Volcano Seismology/Rock Physics		
2	**Kai Deng** and T.-R. A. Song	Toward Mapping P-wave Azimuthal Anisotropy near the Core-Mantle Boundary using Novel Observations of Core-Diffracted Waves PcSdiff
3	**Jennifer Jenkins** and S. Cottaar	Application of crustal seismic methods to image detailed core-mantle boundary structure
4	**Andrew F. Bell**, S. Hernandez, J. McCloskey, M. Ruiz, P. C. LaFemina, C. Bean, J. Grannell, & M. Möllhoff	Dynamic Earthquake Triggering Promoted by System Criticality at Sierra Negra Volcano, Galapagos Islands
Session 3: Data and Software		
5	**Kathrin Lieser**, L. Brown, D. Storchak, J. Harris, B. Shumba, R. Verney, E. Ayres, C. Gkarlaouni, B. Sarkaya, D. Di Giacomo, K.s Lentas, J. Eve	The ISC Rebuild Project: Creating Consistency in the World's Most Comprehensive Seismic Bulletin
6	Carlo Cauzzi, S. Custódio, C. Evangelidis, P. Guéguen, L. Luzi, T. Meier, H.Pedersen, J.r Quinteros, R. Sleeman, and **Frederik Tilmann**	ORFEUS Infrastructure for High-Quality Seismic Data Distribution in Europe: Status and Challenges Posed by the Big Data Era
Sessions 4 & 5: Lithospheric Imaging		
7	**Deborah Wehner**, N. Blom and N. Rawlinson	Towards 3-D Seismic Structure of the Crust and Upper Mantle beneath Southeast Asia from Adjoint Waveform Tomography
8	**Conor Bacon**, R. S. White, N. Rawlinson	Depth Constraints on Seismic Anisotropy in Iceland from Shear Wave Splitting Measurements
9	**Tim Greenfield**, N. Rawlinson, A. Copley, P. Supendi and S. Widiyantoro	Characterising complex subduction zone interaction beneath northern Sulawesi
10	**Eoghan J. Totten**, K. Hosseini, Tarje-Nissen-Meyer and K. Sigloch	Towards finite frequency tomography using regional body waves
Session 6: Near Surface Seismology		
11	**Antony Butcher**, J.-M. Kendall and A. Ridsdale	Piezoelectric Seismic Measurements for Engineering Applications
12	**Adam Klinger,** M. Werner, J. Verdon	Insights into the spectra of micro-seismicity from hydraulic fracturing in the Horn-River basin, British Columbia.
13	**Louise Parkes**, M. Chapman and A. Curtis	Passive Seismic Investigation into Anisotropy over a Gas Chimney
14	**Xin Zhang**, Fredrik Hansteen, A. Curtis and S. de Ridder	3D Monte Carlo ambient noise tomography of Grane field
15	**Gina-Maria Geffers**, M. Naylor and I. Main	Biases in Estimating Hazard from Small Earthquake Catalogues

Session 7: Earthquake Hazards/Earthquake Location		
16	**Bambang Sunardi**, S. Rohadi, D. Karnawati, M. Fikri H.l Hiola, A. R. Hakim, and Sulastri	Estimation of Site Amplification in Mataram City During August 5, 2018 Mw 7 Lombok Earthquake
17	**Hugo Bloem**, A. Curtis and H. Maurer	Linear Versus Nonlinear Experimental Design for Source Location Surveys
18	**Peter Franek**, L. Brown, K. Lentas, Tom Garth, J. Harris and D. A. Storchak	Depth Phase and First Motion Polarity Waveform Picking at the ISC to Improve the Accuracy of Depth and Source Mechanism Determinations
19	**S.E.J. Nippress**, R.G. Heyburn, R.J. Walters, and A.R. Watson	Relocation and seismicity of the aseismic central Iranian plateau
Sessions 8 & 9: Earthquake Seismology		
20	**Farida Ousadou** and A. Ayadi	Stress Tensor in the Cheliff Neogene Basin from Focal Mechanism Inversion: Comparison with Surface Observations
21	**Kirsty Bayliss,** M. Naylor and I. G. Main	Spatial Modelling Of Earthquakes With Log-Gaussian Cox Processes
22	**AbelKarim Yelles-Chaouche**, H. Beldjoudi, I. Abacha and O. Boulahia	Source parameters of the recent main seismic events and stress field variations in Northern Algeria