

SEISMIX 2016

seismology at the crossroads



PROGRAMME

17th International Seismix Symposium
Macdonald Aviemore Resort
Aviemore, Scotland
15-20 May

WELCOME!
17th International Seismix Symposium
Macdonald Aviemore Resort in Aviemore, Scotland
15-20 May 2016

Dear colleagues,

Welcome to the 17th International Seismix Symposium, held at the Macdonald Aviemore Resort in Aviemore, Scotland from 15-20 May 2016. A total of nearly 150 delegates have registered for Seismix 2016, making it one of the largest Seismix symposia of recent times. This has allowed us to formulate an exciting oral and poster programme which features over 170 presentations.

This programme booklet contains details of all events that are taking place during the symposium, including oral presentations, poster presentations, meals and social gatherings. We recommend that you keep it with you at all times and consult with it closely at the start of each day.

Accommodation is divided between the Macdonald Morlich Hotel (directly adjacent to the conference centre) and the Macdonald Aviemore Hotel (approximately 100 m NE of the conference centre). For all delegates staying at a Macdonald hotel, breakfast will be served at the Spey Valley Carvery which is on the ground floor of the conference centre. All evening meals will be served at one of three venues within the conference centre – the Osprey Arena, Spey Valley Carvery or Giovanni's Restaurant. Please carefully note the coach departure times for the mid-conference fieldtrip on Wednesday May 18th and the conference dinner on Thursday May 19th, as these will be strictly adhered to.

For any help during the conference, please seek out one of the Seismix 2016 Organising Committee members or a PhD student helper (who will be wearing a blue-colored badge).

We look forward to a great week!

Seismix 2016 Organising Committee
N. Rawlinson, R. Stephenson, R. Butler, J. Collier & B. Baptie



	7am	8am	9am	10am	11am	12pm	1pm	2pm	3pm	4pm	5pm	6pm	7pm	8pm	9pm						
SUN	<p>* oral (O) sessions and poster (P) sessions will be held in the Peregrine Suite * poster (P) sessions come with tea and coffee, or beer and wine after 8pm</p>								Registration and P1 setup from 3:30-6:00 in the Peregrine Suite			ice-breaker	DINNER BUFFET in the Osprey Arena followed by R. Hobbs' Reflections on BIRPS at 8:30			SUN					
MON	Breakfast in the Spey Valley Carvery		O.M1 8:45-10:30		P1	O.M2 11:00-12:30		lunch in the Spey Valley Carvery		O.M3 1:45-3:30		P1	O.M4 4:00-5:30		P1	DINNER - BUFFET 2 in Osprey Arena		P1 until late		MON	
TUE	Breakfast in the Spey Valley Carvery		O.T1 9:00-10:30		P1	O.T2 11:00-12:30		lunch in the Spey Valley Carvery		O.T3 1:45-3:30		P1	O.T4 4:00-5:30		P1	P2 set up	DINNER - ITALIAN in Giovanni's Italian Ristorante		P2 until late		TUE
WED	Breakfast in the Spey Valley Carvery		O.W1 8:30-10:30		P2	O.W2 11:00-12:00		get pack lunch & board bus by 12:45		AFTERNOON EXCURSION to the Scottish Highlands (BUS DEPARTS AT 1:00 FROM MAIN CAR PARK OUTSIDE CONFERENCE CENTRE BUILDING)						DINNER - BBQ in the Spey Valley Carvery		P2 until late		WED	
THU	Breakfast in the Spey Valley Carvery		O.R1 9:00-10:30		P2	O.R2 11:00-12:30		lunch in the Spey Valley Carvery		O.R3 1:45-3:30		P2	O.R4 4:00-5:30		P2	CONFERENCE DINNER at the 1097 Restaurant (BUS DEPARTS AT 6:15 FROM MAIN CAR PARK OUTSIDE CONFERENCE CENTRE BUILDING)				THU	
FRI	Breakfast in the Spey Valley Carvery		O.F1 8:30-10:00		P2	O.F2 10:30-12:00		lunch Spey Valley Carvery		bus to Dyce and Aberdeen				start of post-conference field trip to the Scottish Highlands				FRI			
	7am	8am	9am	10am	11am	12pm	1pm	2pm	3pm	4pm	5pm	6pm	7pm	8pm	9pm						

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Introductions

8.45 am *N. Rawlinson*: Official Welcome

8.50 am *H. Thybo* (EGU President): Opening address

O.M1: Novel seismic imaging using interferometry (Chair: B. Baptie)

9.00 am (keynote) *K. Wapenaar, J. van der Neut, J. Thorbecke, E. Slob & R. Snieder*: Imaging the Earth's interior with virtual sources and receivers

9.30 am *C.A. da Costa Filho, M. Ravasi & A. Curtis*: Marchenko imaging of primaries and multiples in elastic media

9.45 am *G. A. Meles, K. Wapenaar & A. Curtis*: No more multiple removal: construct primaries then migrate

10.00am *D. Kim, L. Brown & D. Quiros*: Common reflection point body wave imaging by interferometry of earthquake sources

10.15 am *E. Matzel, A. Pitarka & R. Mellors*: Seismic imaging of the Source Physics Experiment site using interferometry

O.M2: Joint inversion of multiple datasets (Chair: A. Curtis)

11.00 am (keynote) *M. Maceira, E.M. Syracuse, C.J. Ammon, H. Zhang & C. Chai*: Simultaneous joint inversion of disparate geophysical observations for 3-D geophysical modelling

11.30 am (keynote) *J.C. Afonso*: Multi-observable probabilistic tomography for the physical state of the Earth's interior

12.00 pm *I. Marzán, D. Martí, A. Lobo, J. Kormann, J. Álvarez-Marrón & R. Carbonell*: Geophysical data integration for a joint interpretation in a shallow gypsiferous context

12.15 pm *S. Begović, C. Ranero, V. Sallarès, A. Meléndez & I. Grevemeyer*: Joint refraction and reflection travel-time tomography of near-vertical and wide-angle seismic data

O.M3: Advanced seismic imaging and inversion methods (Chair: S. Singh)

1.45 pm *W.-P. Chen, C.-Q. Yu, & Y. Jiang*: New developments in virtual deep seismic sounding

2.00 pm *D.A. Thompson, N. Rawlinson & H. Tkalčić*: New crustal thickness estimates of the Australian continent using virtual deep seismic soundings

2.15 pm *A.W. Frederiksen*: Constraining crustal and lithospheric structure via transfer function analysis of teleseismic data

2.30 pm *Y. Yang, Y. Luo, K. Zhao, Y. Xu, & J. Xia*: Unraveling overtone interferences in Love-wave phase velocity measurements by radon transform

2.45 pm *H. Igel, S. Donner, M. Bernauer, F. Bernauer & J. Wassermann*: Can rotational ground motion observations help us solving seismic inverse problems?

3.00 pm *D. Dagnino, V. Sallarès, B. Biescas & C. R. Ranero*: 2-D pre-stack full-waveform inversion of multichannel seismic data to retrieve thermohaline ocean structure. Application to the Gulf of Cadiz (SW Iberia)

3.15 pm *A. Górszczyk, M. Malinowski & S. Operto*: Crustal-scale imaging of a complex subduction system from dense OBS data by Full Waveform Inversion

O.M4: Innovative seismic acquisition and processing techniques (Chair: R. Hobbs)

4.00 pm (keynote) *J.O.A. Robertsson*: New solutions to long-standing problems in seismic data acquisition and imaging

4.30 pm *B. Milkereit, D. Shi, L. Sun & D. Schmitt*: Seismic imaging in a low Q environment

4.45 pm *M. Majdański, M. Trzeciak, E. Gaczyński & A. Maksym*: Depth migration uncertainty based on seismic velocity estimation from wide-angle reflections in layered structures

5.00 pm *S. Buske, F. Hlousek & O. Hellwig*: Focusing prestack depth imaging approaches

5.15 pm *J. Alcalde, C. E. Bond, G. Johnson, J. F. Ellis & R. W. H. Butler*: Where is the fault? – Effect of seismic image quality on fault interpretation uncertainty

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O.T1: Real time monitoring and subsurface imaging 1 (Chair: L. Loneragan)

9.00 am (keynote) *D. Lumley, R. Kamei, N. Issa & U. Jang*: Advanced concepts in full wavefield imaging and inversion: active, passive and real-time 4-D seismology

9.30 am *L.R. Cowton, J.A. Neufeld, N.J. White, M.J. Bickle, J.C. White & R.A. Chadwick*: An inverse method to measure thickness and volume of a thin CO₂ layer at the Sleipner Field, North Sea

9.45 am *C. Allmark, A.L. Stork, A. Curtis, J.M. Kendall, D.J. White & K. Worth*: Can ambient noise energy be used to monitor CO₂ leakage at the Aquistore CO₂ storage facility?

10.00 am *C.M. Krawczyk, T. Beilecke, J. Ziesch & D.C. Tanner*: Pathways between reservoir and surface - advanced seismic fault imaging at the CO₂CRC Otway Project site, Australia

10.15 am *A. Goncharov, A. Cooper & P. Chia*: Do earthquakes contaminate marine reflection data?

O.T2: Real time monitoring and subsurface imaging 2 (Chair: S. Buske)

11.00 am *K. Komminaho, E. Koivisto, N. Hellqvist, H. Tuomi, P. Heikkinen & I. Kukkonen*: Seismic ore exploration in the Outokumpu area, eastern Finland: constrains from 3-D seismic full waveform modeling and processing considerations

11.15 am *N. Hellqvist, E. Koivisto, I. Kukkonen, A. Malehmir & C. Wijns*: Data mining to discover the causes of reflectivity within the Kevitsa intrusion and associated Ni-Cu-PGE deposit in northern Finland

11.30 am *H. Simon, S. Buske, F. Krauß, R. Giese, P. Hedin & C. Juhlin*: Anisotropic velocity model building and imaging around the COSC-1 borehole, central Sweden

11.45 am *V. Lay, S. Buske, A. Lukacs, A. R. Gorman, S. Bannister & D.R. Schmitt*: Advanced seismic imaging techniques characterize the Alpine Fault at the DFDP-2 drill site in Whataroa (New Zealand)

12.00 pm (keynote) *A. Malcolm, O. Poliannikov, F. Massin & G. Melo*: Uncertainty in microseismic event location

O.T3: Shallow subsurface imaging (Chair: R. Carbonell)

1.45 pm (keynote) *C.A. Zelt*: Traveltime and waveform tomography of shallow seismic data

2.15 pm *S. Wadas, U. Polom, H. Bunes & C.M. Krawczyk*: SH-wave reflection seismics as tool for investigating near-surface subsrosion structures and faults

2.30 pm *D. Sollberger, C. Schmelzbach, C. Van Renterghem, J.O.A. Robertsson & S.A. Greenhalgh*: Shear wave identification on vertical component seismic data by wavefield gradient analysis

2.45 pm *C. Van Renterghem, C. Schmelzbach, D. Sollberger, J.O.A. Robertsson & S. A. Greenhalgh*: Spatial gradient-based wavefield separation of multicomponent land seismic data

3.00 pm *L. Schreiter, T. Jusri, R. Bertani, I. Dini, S. Ciuffi & S. Buske*: Seismic investigations in a geothermal area in mid-southern Tuscany

3.15 pm *S.P. Hicks, P.J. Verdon, J.-M. Kendall & P. Hill*: Improved detection of induced seismicity using beamforming techniques: application to traffic light systems

O.T4: Seismic imaging of sedimentary basins (Chair: J. Collier)

4.00 pm (keynote) *L. Loneragan*: Seismic attributes and their use in interpreting structural and sedimentological relationships in sedimentary basins

4.30 pm (keynote) *P. Mitchell*: 4-D seismic through the life of the Harding and Gryphon Fields, Quad 9, UKCS

5.00 pm *M. Malinowski & A. Goncharov*: Using OBS data during regional seismic surveys: a case study from the Exmouth Plateau, offshore NW Australia

5.15 pm *L. Watremez, M. Prada, C. Chen, T. Minshull, B. O'Reilly, T. Reston, G. Wagner, V. Gaw, D. Kläschen & P. Shannon*: Deep structure of the Porcupine Basin using seismic refraction

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O.W1: Continental margins and sedimentary basins (Chair: R. Butler)

8.30 am (keynote) *K. McDermott, R. Graham, J. Pindell & B. Horn: Crustal-scale reflection seismic or why we learned to stop worrying and love the continental margins*

9.00 am *J.S. Collier, H. Al Hindi, C. McDermott, L. Lonergan & B. Horn: Internal structure of seaward-dipping reflectors from velocity analysis of ultra-long-offset seismic reflection data from the Uruguay passive margin*

9.15am *J.K. Welford, S.A. Dehler, & T. Funck: Resolving the crustal velocity structure across the Orphan Basin, offshore Newfoundland, Canada, using a combination of vintage and new refraction/wide-angle reflection data*

9.30 am *T. Minshull: Determining the location of the continent-ocean transition at rifted margins*

9.45 am (keynote) *H. Van Avendonk, G. Christeson, I. Norton & D. Eddy: Structure and early evolution of the northern Gulf of Mexico: constraints from marine seismic refraction data*

10.15 am *R. White, T. Greenfield & Cambridge Volcano Seismology Group: Lower crustal intrusion on North Atlantic rifts from seismic refraction, seismic reflection and passive microseismics*

O.W2: Oceanic lithosphere and mantle (Chair: R. Stephenson)

11.00 am (keynote) *H. Kawakatsu, A. Takeo, T. Isse, K. Nishida, H. Shiobara & H. Sugioka: Elucidation of the lithosphere/asthenosphere system of "normal" oceanic mantle via broadband ocean bottom seismology*

11.30 am *C.A. Rychert, S. Tharimena, & N. Harmon: SS precursor imaging of upper mantle discontinuity structure beneath the Pacific*

11.45 am *C. Lü, J. Lin, T. Hao, X. Qiu & Y. Yao: Mantle heterogeneity in the oceanic lithosphere of the southeast sub-basin, South China Sea, from wide-angle seismic and gravity study*

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O.R1: The North Atlantic lithosphere and mantle (Chair: I. Artemieva)

9.00 am (keynote) *H. Thybo, H. Kraft, A. Shulgin, I. Artemieva & L. Vinnik*: Lithosphere structure and topography around the North Atlantic Ocean

9.30 am *N. White, R. Parnell-Turner, T. Henstock, J. MacLennan, S. Jones & B. Murton*: Regional implications of a continuous 55-million year record of transient mantle convective activity beneath North Atlantic Ocean

9.45 am *R. Lockett & B. Baptie*: Local earthquake tomography of Scotland

10.00 am *R. Mjelde, J.I. Faleide, H. Thybo, E.R. Flueh & Y. Murai*: Lower crustal high-velocity bodies along North Atlantic passive margins, and their link to Caledonian suture zone eclogites and Early Cenozoic magmatism

10.15 am *C. Schiffer, R.A. Stephenson, K.D. Petersen, S.B. Nielsen, B.H. Jacobsen, N. Balling & D.I.M. Macdonald*: New concepts for the plate tectonic reconstruction and the post-orogenic evolution of the North Atlantic

O.R2: Continental lithosphere (Chair: K. Rychert)

11.00 am (keynote) *J. Julià, P. M. Mai, & Z. Tang*: Joint inversion of P- and S-wave receiver functions and surface-wave dispersion velocities: case studies in Arabia.

11.30 am *I. Artemieva*: Thermo-chemical heterogeneity of continental lithospheric mantle: examples from Europe, Siberia, and Southern Africa

11.45 am *F. Darbyshire, I. Bastow, A. Gilligan, J.-M. Dubé & A. Forte*: Seismic anisotropic fabrics in eastern and northern Canada: evidence from shear wave splitting measurements

12.00 pm *S. Heinonen, R. Lahtinen, M. Sayab & H. Leväniemi*: Stepping stones to reconstruct the Archean-Paleoproterozoic boundary of Central Fennoscandia: insights from deep seismic reflection profiles

12.15 pm *A.J. Calvert & M. Doublier*: Constraints on Archean tectonic processes from seismic reflection surveys in the Canadian Superior and Australian Yilgarn cratons

O.R3: Lithospheric subduction (Chair: H. Kawakatsu)

1.45 pm (keynote) *D.J. Shillington, A. Bécel, J. Li, M.R. Nedimović, H. Kuehn, S.C. Webb, D. Saffer, G.A. Abers & K. Keranen*: Controls on faulting, earthquakes and water cycling in the Alaska subduction zone

2.15 pm *S. Kodaira, G. Fujie, A. Ohira, Y. Nakamura, K. Obana & S. Miura*: Active-source seismic studies from ocean basin to trench in the Northwestern Pacific; imaging from sediment to lithosphere-asthenosphere boundary

2.30 pm *T. Ito*: Lithospheric structures and their formation process at the northwestern border region of the Izu collision zone, central Japan

2.45 pm *T. Iwasaki, N. Tsumura, T. Ito, H. Sato, E. Kurashimo, N. Hirata, K. Arita, K. Noda, A. Fujiwara, S. Abe, S. Kikuchi & K. Suzuki*: Arc-arc collision structure in the southernmost part of the Kuril trench region - overview of results from integrated reanalyses for controlled source seismic data in the Hidaka Collision Zone

3.00 pm *R. Arai, T. Takahashi, S. Kodaira, S. Miura, Y. Kaneda, A. Nishizawa & M. Oikawa*: Structure and seismic behaviour along the weakly-coupled Nansei-Shoto subduction zone from active- and passive-source seismic investigations

3.15 pm *S. Bannister, D. Eberhart-Phillips, K. Obara & M. Reyners*: Imaging the subduction megathrust, northern Hikurangi subduction zone, New Zealand

O.R4 2: Back-arc lithosphere (Chair: T. Minshull)

4.00 pm (keynote) *S. Singh*: Ultra-deep marine seismic imaging: A voyage from BIRPS to Trans-AtlanticILAB

4.30 pm *H. Sato, T. Ishiyama, S. Abe, N. Kato, A. Van Horne, J. S. Claringbould, T. Iwasaki, M. Matsubara & T. Takeda*: Structure and evolution of backarc marginal rifts in Japanese island arcs

4.45 pm *J. Li, X. Wang & G.R. Guo*: Structure of upper mantle discontinuities beneath Japan Sea and adjacent regions revealed by multiple ScS waves

5.00 pm *T. Ishiyama, H. Sato, N. Kato, S. Koshiya & S. Abe*: Structures and active tectonics of reactivated back-arc rift revealed by multiscale seismic profiling: Hokuriku region, central Japan

5.15 pm *T.-K. Hong, D. Chi, J. Lee & S. Park*: Transient lithospheric deformation after a megathrust

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								start of post-conference field trip to the Scottish Highlands								

O.F1: Orogenic lithosphere (Chair: N. White)

8.30 am *Y. Duan, X. Tian, X. Liang, C. Wu, W. Li, B. Zhou, X. Guo, M. Zhang, Z. Liu, G. Zhu, S. Nie, Z. Wu, G. Wang, T. Xu, J. Teng & J. Li:* The mantle transition zone beneath central Tibet : seismic evidence for lithospheric detachment

8.45 am *W. Li, Y. Chen, X. Yuan, B. Schurr & J. Mechie:* The relationship between lithospheric deformation and intermediate-depth seismicity beneath the Pamir revealed by surface wave tomography

9.00 am *D.G. Cornwell, E. Papaleo, D.A. Thompson, S. Rost, G.A. Houseman, M. Kahraman, N. Turkelli, U. Teoman, S. Altuncu Poyraz, L. Gülen & M. Utkucu:* Continental strike slip fault zones in geologically complex lithosphere: the North Anatolian Fault, Turkey

9.15 am *S. Yelissetti, G. Spence, M. Scherwath, M. Riedel & D. Klaeschen:* Dual-vergence structure from multiple migration of widely spaced OBSS

9.30 am *T. Iidaka, E. Kurashimo, T. Iwasaki, R. Arai, A. Kato, H. Katao, F. Yamazaki, & The Research Group for the 2007 Atotsugawa Fault Seismic Expedition:* Large heterogeneous structure beneath the Atotsugawa Fault, central Japan, revealed by seismic refraction and reflection experiments

9.45 am *S.Yamakita & T. Ito:* Tectonic history of Median Tectonic Line in Japan from its birth to present activity suggested by seismic profiling

O.F2: Magmatism and hydrothermal processes in the lithosphere (Chair: S. Bannister)

10.30 am *T. Greenfield, R.S. White & S.W. Roecker:* The magmatic plumbing system of the Askja central volcano, Iceland, as revealed by local earthquake tomography

10.45 am *R.G. Green, K.F. Priestley, & R.S. White:* Seismic velocity structure of active rifts and a mid crustal low velocity zone in the Icelandic crust

11.00 am *J.P. Canales, R.A. Dunn, R.A. Sohn, G. Horning, R. Arai & M. Paulatto:* Seismic reflection imaging of the heat source of an ultramafic-hosted hydrothermal system (Rainbow, Mid-Atlantic Ridge 36° 10-17'N)

11.15 am *D.J. Wilson, C. Peirce, R.W. Hobbs, V.C.H. Tong, R.N. Harris, L. Zhang & E.P.M. Gregory:* Evolution of young oceanic crust formed at the Costa Rica Rift in the Panama Basin, an overview of the OSCAR project

11.30 am *E.P.M. Gregory, R.W. Hobbs, C. Peirce & D.J. Wilson:* Fracturing and alteration in young oceanic crust from 3-D seismic velocity structure and anisotropy analysis

11.45 am *R.A. Dunn, J.P. Canales & R. Sohn:* Tracking stress and hydrothermal activity along oceanic spreading centers using three-dimensional tomographic images of seismic anisotropy

POSTER SESSION 1: Sunday to Tuesday afternoon

P1.1: *C. Sammarco, N. Rawlinson & D. Cornwell*: Ambient seismic noise and the North Sea: Can we image what lies beneath?

P1.2: *T. Lecocq, C. Caudron, R. De Plaen, A. Mordret & E.J. Chaves*: Seismic interferometry and monitoring of the Earth's background seismic field

P1.3: *E. Crowder, N. Rawlinson, & D. Cornwell*: Seismic imaging without a source: Towards cost effective and low environmental impact hydrocarbon exploration

P1.4: *C. Donaldson, C. Caudron, R.G. Green, W.A. Thelen & R.S. White*: Velocity variations at Kilauea and Bárðarbunga volcanoes measured using ambient seismic noise

P1.5: *D. Quiros, L. Brown & D. Kim*: Seismic interferometry of railroad induced ground motions: body and surface wave imaging

P1.6: *X. Zhang, P. Song, Z. Yang, H. Shi, W. Yang, L. Zou, C. Miao, J. Liu, Z. Huang & J. Teng*: Reconstruction of the crust and lithosphere beneath southeast China from ambient noise tomography and receiver functions

P1.7: *G. Bayrakci, T.A. Minshull, R.G. Davy, J.M. Bull, D. Klaeschen, C. Papenberg, D. Sawyer, T.J. Reston, G. Lymer, D. Cresswell, C. Ranero & A. Meléndez*: 3-D joint refraction-reflection travel-time tomography of the Galicia 3-D wide-angle dataset

P1.8: *C. Gras, V. Sallarès, D. Dagnino, C.E. Jiménez-Tejero, A. Meléndez & C. Ranero*: Feasibility analysis of travel-time tomography of downward continued streamer data followed by full waveform inversion in limited-low frequency recordings

P1.9: *S. Singh, G. Huot & Y. Qin*: A strategy for seismic full waveform of ultra-long streamer seismic data from offshore central Sumatra

P1.10: *X. He*: SS waveform splitting: Theoretical analysis and tentative applications

P1.11: *M. Majdański*: Uncertainty in layered models based on seismic travel times

P1.12: *M. Prada, L. Watremez, C. Chen, B. O'Reilly, T. Minshull, T. Reston, G. Wagner, V. Gaw, D. Kläschen & P. Shannon*: Resolution and uncertainty analyses of seismic refraction models: new constraints on the deep structure of the Porcupine Basin

P1.13: *N. Rawlinson & W. Spakman*: On the use of sensitivity tests in seismic tomography

P1.14: *A. Loureiro, A. Afilhado, L. Matias, M. Evain, P. Schnurle, M. Moulin & D. Aslanian*: Monte Carlo approach to assess the uncertainty of wide-angle layered models

P1.15: *A. Curtis & M. Runge*: Interpretational uncertainty

P1.16: *C. Birnie, K. Chambers, D. Angus & A. Stork*: Modelling the enemy: a comparison of methods for simulating noise in seismic datasets

POSTER SESSION 1: Sunday to Tuesday afternoon

P1.17: *R.W.H. Butler, T.M. Torvela & W.D. McCaffrey*: Multiple structural interpretations of seismic reflection data – using the Virtual Seismic Atlas to collate and assess uncertainty

P1.18: *P. Heikkinen, K. Komminaho & A. Korja*: FIRE for free (FFF) – how to make large and valuable seismic reflection data sets easily available

P1.19: *S.P. Hicks, P. Hill, G. Mangano, C. Pearcey & C. Potts*: A new generation of ocean-bottom seismometers

P1.20: *T. Fomin, R.D. Costelloe, T. Kemp, L. Goldie Divko & A. Stacey*: Lessons from nodal acquisition in south Gippsland, Victoria

P1.21: *A. Zenonos & N. Rawlinson*: A scan statistics approach to picking seismic wave arrival times using arbitrary-sized sliding windows

P1.22: *O. Hellwig, B. Zehner, M. Linke, I. Görz & S. Buske*: Using realistic 3-D geological models based on triangulated surfaces in parallel seismic finite difference simulations

P1.23: *D. Iacopini, R.W.H. Butler, S. Purves & N. McArdle*: Exploring seismic facies within fault zones in 3-D seismic volumes: an image processing workflow model

P1.24: *D. Iacopini, R.W.H. Butler, S. Purves & N. McArdle*: Exploring seismic facies within fault zones in 3-D seismic volumes: some examples from thrust and normal faults systems

P1.25: *A. Shulgin & H. Thybo*: Active seismic profile in east-central Greenland. Seismic explosion sources on an ice cap

P1.26: *S. Heinonen, M. Dehghannejad, A. Malehmir, G. Maries, P. Heino, F. Karell & M. Suikkanen*: Seismic landstreamer data in challenging mining environment: lessons learned from Siilinjärvi apatite-bearing open-pit mine, Finland

P1.27: *E. Krasinskiy, E. Grigoriev, N. Ivanova, L. Miles, N. Amelin, T. Minshull & M. Pernette*: Determination of parameters of the Earth's crust types in the Eastern Black Sea Basin based on complex interpretation of reflection plus refraction seismic data and potential fields

P1.28: *R. Abbott, L. Preston, K. Phillips-Alonge, D. Tang & T. Finlay-Hatton*: Geologic characterization of Yucca Flat, Nevada, using the Seismic Hammer™

P1.29: *S. Wadas, U. Polom & C.M. Krawczyk*: The leaning church tower of Bad Frankenhausen, Germany – characterization and detection of subsidence-controlled unstable zones and structures

P1.30: *U. Polom, C.M. Krawczyk, C. Müller, P. Villamor & A. Nicol*: Urban reflection seismics in Whakatane city, New Zealand - detection of concealed faults using a shear-wave system

P1.31: *C. Schmelzbach, D. Sollberger, C. Van Renterghem, M. Häusler, J.O.A. Robertsson & S.A. Greenhalgh*: Seismic spatial wavefield gradient and rotation measurements in land-seismic exploration

POSTER SESSION 1: Sunday to Tuesday afternoon

P1.32: *M. Riedel, S. Reiche & S. Buske*: Seismic depth imaging for fresh groundwater simulations at the New Jersey shelf

P1.33: *C.A. Zelt, J. Chen & A. Levander*: Frequency-dependent traveltimes tomography of dense 3-D seismic data from a shallow groundwater contamination site

P1.34: *J. Andrés, J. Alcalde, P. Ayarza, E. Saura, I. Marzán, D. Martí, J.R. Martínez-Catalán, R. Carbonell, A. Pérez-Estaún, C. Ayala & F.M. Rubio*: Microgravimetric and seismic joint characterisation of the basement in Hontomín (Spain)

P1.35: *X. Ogaya, J. Alcalde, I. Marzan, J. Ledo, P. Queralt, A. Marcuello, D. Martí, E. Saura, R. Carbonell & B. Benjumea*: Joint geophysical characterisation of the CO₂ storage site of Hontomín (Spain): magnetotelluric, seismic and well-log data

P1.36: *J. Alcalde, C.E. Bond, G. Johnson, J.F. Ellis, R.W.H. Butler & M. Cooper*: Learning interpretation: time-lapse seismic interpretation experiment with masters students

POSTER SESSION 2: Tuesday afternoon to Friday

P2.1: *O. Barantseva, L. Vinnik & I. Artemieva*: Structure of Canadian lithosphere obtained from receiver functions

P2.2: *A.W. Frederiksen, H. Zhang, Y. Tyomkin, S. van der Lee & the SPREE Working Group*: Crust and moho structure across the North American midcontinent rift system via receiver function and transfer function analysis

P2.3: *D.J. Shillington, D. Lizarralde, R. Marzen & S. Harder*: Extension and magmatism across the Suwanee Suture and South Georgia Basin from the SUGAR seismic refraction experiment

P2.4: *D. Kim, A. Cabolova & L. Brown*: 3-D reflection imaging of an extensive, thick Proterozoic layered basement complex in southeastern New Mexico from reprocessing of “discarded” nodal oil exploration recordings

P2.5: *L. Zhang, V. Tong, R.W. Hobbs & D. Wilson*: 3-D crustal structure beneath the Costa Rica Rift from seismic refraction tomography

P2.6: *S. Martínez-Loriente, V. Sallarès, C.R. Ranero, I. Grevemeyer & K. McIntosh*: Seismic structure of the Southern Costa Rica convergent margin

POSTER SESSION 2: Tuesday afternoon to Friday

P2.7: *N.A. Dias, A. Afilhado, P. Schnürle, F. Gallais, M. Moulin, D. Aslanian, J. Soares, R. Fuck, J.A. Cupertino, A. Viana, L. Matias, M. Evain & A. Loureiro*: Crustal structure of the Barreirinhas Basin, NW Brazil, from a 3-D wide-angle seismic survey

P2.8: *P. Schnürle, F. Gallais, A. Afilhado, M. Moulin, N.A. Dias, J. Soares, A. Loureiro, R. Fuck, J.A. Cupertino, A. Viana, L. Matias, M. Evain & D. Aslanian*: Seismic structure of the Maranhão-Barreirinhas-Cearà margin, NW Brazil, from the MAGIC wide-angle seismic experiment

P2.9: *J.E.P. Soares, R. Stephenson, R.A. Fuck, M.V.A.G. de Lima, F.T. Lima, F.A.S. Rocha, V.C.M. de Araújo, C.R. da Trindade, C.H.S.P. Simões & V.I. Mocanu*: The Parnaíba Basin WARR, Brazil

P2.10: *B. Tozer, A. B. Watts & M. C. Daly*: Seismic reflection and refraction imaging of the Parnaíba cratonic basin, North-East Brazil

P2.11: *D. Aslanian, A. Afilhado, C. Corela, P. De Barros Correia, N. Dias, J. Duarte, M. Evain, R. Fuck, M. Gorki, J. Julia, A. Loureiro, L. Matias, M. Moulin, A. Nascimento, S. Neves, P. Pelleau, M. Perrez-Guissente, M. Rabineau, P. Schnürle, G. Silveira, J. Soares & A. Viana*: BB-ASAP: BroadBand seismic experiment in the Area of Sergipe-Alagoas-Pernambuco, Brazil

P2.12: *M. Evain, F. Klingelhoefer, A. Afilhado, C. Rigoti, A. Loureiro, D. Alves, P. Schnürle, A. Leprêtre, A. Feld, R. Fuck, J. Soares, M. Vinicius de Lima, C.*

Corela, L. Matias, M. Benabdellouahed, A. Baltzer, M. Rabineau, A. Viana, M. Moulin & D. Aslanian: Deep structure of the Santos Basin-São Paulo Plateau System, SE Brazil

P2.13: *D.J. Shillington, C.A. Scholz, N.J. Accardo, T. McCartney, J.B. Gaherty, P.R. Chindandali, G. Kamihanda, P. Trimhammer, D. Wood, K. Mtelala, D. Gondwe, S. Chilje, C.J. Ebinger, A.A. Nyblade, G. Mbogoni, R.F. Wambura, A. Mruma & J. Salima*: New active-source seismic imaging of the Malawi (Nyasa) Rift from the SEGMeNT project

P2.14: *J.P. Canales, L. Moffat, D. Lizarralde, K. Laletsang, S. Harder, G. Kaip & M.P. Modisi*: Crustal structure across the Okavango continental rift zone, Botswana: Initial results from the PRIDE-SEISORZ active-source seismic profile

P2.15: *M. Bello, N. Rawlinson & D.G. Cornwell*: Linking Tasmania and mainland Australia using passive seismic imaging techniques

P2.16: *S. Piliá, P. Arroucau & N. Rawlinson*: Azimuthal anisotropy of Rayleigh wave phase velocity beneath southeast Australia

P2.17: *J. Okoń, J. Gizejewski & T. Janik*: A new insight on the first Polish multi-channel seismic profiles in the Pacific Margin of Antarctic Peninsula, West Antarctica

P2.18: *H. Thybo, I. Artemieva, & Y. Cherepanova*: Seismic structure of the crust in Eurasia

POSTER SESSION 2: Tuesday afternoon to Friday

P2.19: *I. Aarseth, R. Mjelde, A. J. Breivik, R. Huismans & J. I. Faleide:* Barents Sea Paleozoic basement and basin configurations: crustal structure from deep seismic and potential field data
P2.20: *A. Makushkina, H. Thybo, L. Vinnik & M. Youssof:* Preliminary P-receiver function imaging on the crustal structure of Scandinavia
P2.21: *H. Muhamad & C. Juhlin:* High resolution 2-D seismic reflection investigations in the Mora area of the Siljan impact crater, central Sweden
P2.22: *I. Artemieva & A. Shulgin:* The Proterozoic Ladoga rift (SE Baltic shield): no evidence for a rift in geophysical data
P2.23: *V. Starostenko, T. Janik, T. Yegorova, W. Czuba, P. Środa, D. Lysunchuk, R. Aizberg, R. Garetzky, G. Karataev, Y. Gribik, L. Farfuliak, K. Kolomiyets, V. Omelchenko, D. Gryn, A. Guterch, K. Komminaho, O. Legostaeva, H. Thybo, T. Tiira & A. Tolkunov:* The GEORIFT 2013 wide-angle seismic profile, preliminary results
P2.24: *P. Krzywiec, S. Mazur, Ł. Gagala, M. Malinowski, M. Kufraś, Ł. Słonka, M. Lewandowski, V. Buffenmyer, K. Pietsch, J. Golonka & I. Kurovets:* Late Paleozoic crustal-scale wrenching or thin-skinned thrusting in SE Poland and W Ukraine?
P2.25: *RomUkrSeis Working Group:* The RomUkrSeis wide-angle seismic profile: preliminary results
P2.26: *R.G. Davy, T.A. Minshull, G. Bayrakci, J.M. Bull, D. Klaeschen, C. Papenberg, T.J. Reston, D.S. Sawyer & C.A. Zelt:* Delimiting the continent-ocean transition at the ultra-slow Deep Galicia

rift margin: new insights from wide-angle seismic data
P2.27: *N.A. Dias, G. Silveira, I. Veludo, L. M. Matias, S. Dündar & S. Custódio:* Crustal structure of Portugal from passive and active seismic methods
P2.28: *I. Palomeras, P. Ayarza, R. Carbonell, J. Andrés, J.C. Afonso & J. Díaz:* Origin of subcrustal reflectivity in SW Iberia: evidence from wide-angle seismic experiments
P2.29: *M. Stiller, C. Haberland, L. Gibert, M.J. Jurado, G. Scott & D. Mertz:* Seismic reflection profiling of the Baza sedimentary basin (Betics, Southern Spain)
P2.30: *R. Gascón, D. Martí, J.J. Martínez-Díaz, T. Teixidó, J. P. Camacho, I. Marzán & R. Carbonell:* Seismic characterization of the Alhama de Murcia Fault (Epicentral area of the Lorca 2011 earthquake)
P2.31: *P. Ayarza, R. Carbonell, S. Ehsan, D. Martí, I. Palomeras, J. Andrés & D. Poyatos:* Crustal structure variations in the southern Central Iberian Zone: effects of composition and Alpine reactivation in an internal Variscan domain
P2.32: *J.R. Martínez Catalán & P. Ayarza:* Seismic profiles in NW Spain help to constrain orogenic evolution during Variscan crustal thickening and extensional collapse
P2.33: *G. Fernández-Viejo, J. Olona, C. López-Fernández, J.A. Pulgar & S. Llana-Fúnez:* Characterization of the Ventaniella fault from top to bottom through a multidisciplinary geophysical study

POSTER SESSION 2: Tuesday afternoon to Friday

P2.34: *T. Burschil, H. Bunes, G. Gabriel & C.M. Krawczyk:* Benefits for shallow seismic imaging by both P- and S-wave application in the Tannwald basin (Germany)
P2.35: *D. Martí, I. Marzán, J. Kormann, J. Álvarez-Marrón & R. Carbonell:* Shallow subsurface 3-D seismic velocity structure (Záncara river basin, Iberian Peninsula)
P2.36: *E. Papaleo, D.G. Cornwell & N. Rawlinson:* Constraints on the structure of the North Anatolian Fault in the lower crust and upper mantle from teleseismic tomography
P2.37: *S. Pilia, M. Ali, A.B. Watts & M. P. Searle:* Deep crustal structure of the UAE-Oman mountain belt from wide-angle refraction and reflection profiles
P2.38: *L.D. Brown, J. Hubbard, M. Marianne Karplus, S.L. Klempner & H. Sato:* The Himalayan seismogenic zone: a new frontier for earthquake research
P2.39: *A. Gilligan & K.F. Priestley:* The location of Indian lithosphere beneath Tibet: Insights from group and shear wave velocity structure
P2.40: *B. Xia, H. Thybo & I. Artemieva:* Seismic structure of the crust in North China Craton
P2.41: *Y. Xu & S. Wang:* Seismic evidence of the Tan-Lu fault zone in Bohai Sea of eastern China from P-wave tomography
P2.42: *T. Hao, Q. You, L. Liu & C. Lü:* Integrated geophysical study on the deep

structure of Bohai Bay region
P2.43: *J.M. Lee, Y. C. Lee & D.H. Lee:* Crustal velocity structure and density model beneath a temporary broadband seismic array in the Gyeongju Area of Korea
P2.44: *R. Araj, T. Takahashi, S. Kodaira, Y. Kaiho, S. Miura & Y. Kaneda:* Continental rift structure in the Okinawa Trough back-arc basin
P2.45: *T. Iwasaki, H. Sato, M. Shinohara, M. Shinohara, T. Ishiyama & A. Hasjima:* Fundamental structure model of island arcs and subducted plates in and around Japan
P2.46: *C. McDermott, J. Collier, L. Lonergan & B. Horn:* A new model for the formation of seaward-dipping reflectors in the South Atlantic Ocean
P2.47: *A. Ohira, S. Kodaira, Y. Nakamura, G. Fujie, R. Arai & S. Miura:* Mid-mantle reflectors within the oceanic lithosphere in the Pacific
P2.48: *I. Artemieva, H. Thybo & A. Shulgin:* Geodynamics of convergent margins: a global geophysical perspective
P2.49: *H. Thybo & I. Artemieva:* Moho and magmatic underplating in continental lithosphere
P2.50: *C. Ulberg, K. Creager, G. Abers, A. Levander, E. Kiser, B. Schmandt, J. Vidale, & H. Houston:* Local earthquake P-wave tomography at Mount St. Helens with the iMUSH broadband array
P2.51: *C. Caudron, B. Taisne, Y. Kugaenko & V. Saltykov:* Magma migration at the onset of the 2012-13 Tolbachik eruption revealed by seismic amplitude ratio analyses



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