Programme

18th International SEISMIX Symposium

Seismology between the Poles

17 - 22 June 2018

Cracow, POLAND

seismix2018.pl

Contents

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GEOPLANET

Welcome word

On behalf of the two Institutes of the Polish Academy of Sciences: Institute of Geophysics and Institute of Geological Sciences, we would like to welcome you to the 18th edition of the biennial International Symposium on the Deep Seismic Profiling of the Continents and their Margins (SEISMIX 2018), held at the Novotel Centrum Hotel in Kraków, Poland from 17-22 June 2018.

Kraków is one of the oldest cities in Poland, with a great cultural heritage and link to history of geophysics (world's first department of mathematical geophysics and meteorology established in 1895 by M. P. Rudzki). We will take the advantage of the Symposium location during the sightseeing tour and conference dinner in the Old Town on Wednesday, June 20th.

We put together an exciting oral and poster programme which features over 110 presentations, including 5 keynote talks, covering different aspects of active/passive seismic imaging across the scales: from upper mantle to the near-surface including some recent methodological developments (like full-waveform inversion or seismic interferometry). The motto of SEISMIX 2018: "Seismology between the Poles" reflects not only the location of the meeting, but also global reach of our research: from Arctic to Antarctic.

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. For any help during the conference, please seek out one of the SEISMIX 2018 Organizers (who will be wearing a special badge).

We look forward to a great week!

On behalf of the SEISMIX 2018 Organising Committee

Dr Michal Malinowski

Organizing Committee

Michal Malinowski	Institute of Geophysics, Polish Academy of Sciences
Piotr Krzywiec	Institute of Geological Sciences, Polish Academy of Sciences
Mariusz Majdański	Institute of Geophysics, Polish Academy of Sciences
Marta Cyz	Institute of Geophysics, Polish Academy of Sciences
Andrzej Górszczyk	Institute of Geophysics, Polish Academy of Sciences
Mateusz Kufrasa	Institute of Geological Sciences, Polish Academy of Sciences
Aleksandra Stachowska	Institute of Geological Sciences, Polish Academy of Sciences
Anna Zdunek	Institute of Geophysics, Polish Academy of Sciences
Łukasz Słonka	Institute of Geological Sciences, Polish Academy of Sciences

Scientific Committee

Aleksander Guterch	Institute of Geophysics, Polish Academy of Sciences
Marek Grad	University of Warsaw, Poland
Tomasz Janik	Institute of Geophysics, Polish Academy of Sciences
Piotr Środa	Institute of Geophysics, Polish Academy of Sciences
Stanisław Mazur	Institute of Geological Sciences, Polish Academy of Sciences
Kaja Pietsch	AGH University of Science and Technology, Poland
Paweł Pomianowski	Geofizyka Toruń, Poland
Gabor Tari	OMV, Austria
Michal Nemčok	Energy & Geoscience Institute, USA
Ernő Takács	Mining and Geological Survey of Hungary
Vitaly Starostenko	Institute of Geophysics, Ukrainian Academy of Sciences
Tamara Yegorova	Institute of Geophysics, Ukrainian Academy of Sciences
Takaya Iwasaki	University of Tokyo, Japan

Suichi Kodaira	JAMSTEC, Japan
Tanya Fomin	Geoscience Australia
Alexey Goncharov	Geoscience Australia
Ramon Carbonell	Institute of Earth Sciences Jaume Almera, CSIC, Spain
Valenti Sallares	Institute of Marine Sciences, CSIC, Spain
Nick Rawlinson	Cambridge University, UK
Randell Stephenson	University of Aberdeen, Scotland
Dave Snyder	Laurentian University, Sudbury, ON, Canada
Andrew Calvert	Simon Fraser University, Canada
Larry Brown	Cornell University, USA
Richard Hobbs	Durham University, UK
Alireza Malehmir	Uppsala University, Sweden
Jean Virieux	University Alpes Grenoble, France
Satish Singh	Institut de Physique du Globe de Paris, France
Shihong Zhang	China University of Geosciences
Pekka Heikkinen	University of Helsinki, Finland

Keynote Speakers

Shuichi Kodaira	JAMSTEC, Japan
Milena Marjanović	IPGP, France
Stanislaw Mazur	Institute of Geological Sciences, Polish Academy of Sciences
Michal Nemčok	Energy and Geoscience Inst. at University of Utah; EGI Laboratory at SAV, USA
Stéphane Operto	University Côte d’Azur (Géoazur lab.), France

Programme at a glance

	9am	10 am	11am	12am	1pm	2pm	3pm	4pm	5pm	6pm	7pm	8pm	
SUNDAY	• OW – official welcome • oral (O) sessions will be held in the Wawel Conference Room • poster sessions with beverages (PwB) will be held in the Batory Conference Room • CB – coffee breaks					**ARRIVAL AND REGISTRATION**				**COCKTAIL & ICE-BREAKER**			**SUNDAY**
MONDAY	**OW** **O.M.I**		**CB** **O.M.II**	LUNCH AT NOVO SQUARE RESTAURANT		**O.M.III**	**CB** **O.M.IV**			DINNER AT NOVO SQUARE RESTAURANT	**PwB**		**MONDAY**
TUESDAY	**O.T.I**	**CB**	**O.T.II**	LUNCH AT NOVO SQUARE RESTAURANT		**O.T.III**	**CB** **O.T.IV**			DINNER AT NOVO SQUARE RESTAURANT	**PwB**		**TUESDAY**
WEDNESDAY	**O.W.I**	**CB**	**O.W.II**	LUNCH AT NOVO SQUARE RESTAURANT		**Mid-conference city sightseeing with confernece dinner (meeting point hotel lobby 2.30 pm)**							**WEDNESDAY**
THURSDAY	**O.TH.I**	**CB**	**O.TH.II**	LUNCH AT NOVO SQUARE RESTAURANT		**O.TH.III**	**CB** **O.TH.IV**	**OPEN DISCUSSION**		DINNER AT NOVO SQUARE RESTAURANT	**PwB**		**THURSDAY**
FRIDAY	**O.F.I**	**CB**	**O.F.II**	LUNCH AT NOVO SQUARE RESTAURANT		**Post-conference field trip departure Meeting point: hotel lobby @2pm**							**FRIDAY**
	9am	10 am	11am	12am	1pm	2pm	3pm	4pm	5pm	6pm	7pm	8pm	

	9am	10 am	11am	12am	1pm	2pm	3pm	4pm	5pm	6pm	7pm	8pm	
MONDAY	OW	O.M.I	CB	O.M.II	LUNCH AT NOVO SQUARE RESTAURANT	O.M.III	CB	O.M.IV		DINNER AT NOVO SQUARE RESTAURANT	PwB		MONDAY

MONDAY 18th June

9.00 am **Official Welcome**

M.I: The continental lithosphere I (Chairperson: M. Malinowski)

9.20 am **M.I.1 (KEYNOTE)** *In search of a fossil plate boundary of Baltica in Poland – the Teisseyre-Tornquist Zone revisited*
S. Mazur, P. Krzywiec, M. Malinowski, M. Lewandowski, P. Aleksandrowski & M. Mikołajczak

10.00 am **M.I.2** *RomUkrSeis: the deep structure of the TESZ where it is obscured by the Eastern Carpathians*
RomUkrSeis Working_Group: T. Amashukeli, W. Czuba, A. Dragut, D. Gryn, T. Janik, K. Kolomiyets, O. Legostaeva, D. Lysynchuk, J. Mechie, V. Mocanu, J. Okoń, V. Omelchenko, T. Skrzynik, V. Starostenko, R. Stephenson, P. Środa & T. Yegorova

10.20 am **M.I.3** *Late Archean continental spreading inferred from seismic reflection images of the Australian Yilgarn craton*
A. Calvert & M. Doublier

10.40 am **M.I.4** *Crustal Structure of Sulu Orogenic Belt: from an Active Source Onshore-Offshore Wide-angle Seismic Profile*
L. Liu, T. Hao, C. Lu, Z. Wu, K. Kim & H. Kim

11.00-11.30 *Coffee break*

M.II: The continental lithosphere I (Chairperson: R. Carbonell)

11.30 am **M.II.1** *Seismic imaging of a Variscan suture in SW Iberia and its role in seismicity control*
N. Dias & I. Veludo

11.50 am **M.II.2** *Seismic imaging of the Eastern Pyrenean belt*
J. Diaz, S. Chevrot, J. Verges, M. Ruiz, A. Antonio-Vigil & M. Sylvander

12.10 pm **M.II.3** *Understanding the origins of intraplate volcanism: A geophysical perspective*
N. Rawlinson, R. Davies & S. Pilia

12.30 pm **M.II.4** *Influence of a megathrust earthquake on crustal properties and seismicity in regional distances*
T.-K. Hong, J. Lee, S. Park & W. Kim

12.50-14.00 *Lunch*

M.III: Passive continental margins (Chairperson: P. Krzywiec)

14.00 pm **M.III.1 (KEYNOTE)** *Continental breakup mechanisms and their controlling factors in magma-poor and magma-rich settings; evidence from deep reflections seismic imagery?*
M. Nemčok, L. Pospíšil, A. Melnik, A. Henk, A. G. Doré, S. Rybár, S. T. Sinha, M. Choudhuri, S. Sharma, C. J. Stuart, C. Welker, N. Sinha, P. Nuttall & S. Venkatraman

14.40 pm **M.III.2** *Crustal structure of the Natal Valley from combined wide-angle and reflection seismic data (MOZ3/5 cruise), South Mozambique Margin*
P. Schnürle, A. Leprêtre, F. Verrier, M. Evain, D. Aslanian, P. De-Clarens, N. A. Dias, A. Loureiro, S. Leroy & M. Moulin

15.00 pm **M.III.3** *Fossil margin of Baltica in Poland – how does it compare with the Atlantic passive margins?*
S. Mazur, M. Mikołajczak, P. Krzywiec, M. Malinowski, P. Środa & M. Lewandowski

15.20-15.50 *Coffee break*

M.IV: Passive continental margins (Chairperson: M. Marjanović)

15.50 pm **M.IV.1** *Eastern Gondwana breakup: Rifting and breakup as viewed from northern Zealandia*
B. Boston, F. Gallais, Y. Nakamura, G.Fujie, S. Kodaira, S. Miura, R. Hackney, Y. Kaiho, K. Aoike & S. Saito

16.10 pm **M.IV.2** *A key of understanding the earliest separation of New Zealand from Gondwana – The crustal structure of the Chatham Rise and Chatham Terrace*
F. Riefstahl, K. Gohl, B. Davy, N. Mortimer & E. Jolis

16.30 pm **M.IV.3** *Crustal structure of the Arabian passive margin from seismic and gravity data*
S. Pilia, M. Ali, A. Watts & B. Keats

16.50 pm **M.IV.4** *New tectonostratigraphic model of the Interior Basin, onshore Gabon, based on reinterpreted seismic data, or how the Central Atlantic was opened*
P. Krzywiec, M. Kufrasa, P. Poprawa, P. Pomianowski, M. Łukaszewski, S. Mazur & Ł. Słonka

17.10 pm **M.IV.5** *A detailed look at diapir piercement onto the ocean floor: New evidence from Santos Basin, offshore Brazil*
U. Schattner, F.J. Lobo, M. García, M. Kanari, R. Basti Ramos & M. Michaelovitch de Mahiques

18.00-19.30 *Dinner*

19.30-21.00 ***Posters with beverages***

	9am	10 am	11am	12am	1pm	2pm	3pm	4pm	5pm	6pm	7pm	8pm	
TUESDAY	**O.T.I**	**CB**	**O.T.II**	LUNCH AT NOVO SQUARE RESTAURANT		**O.T.III**	**CB**	**O.T.IV**		DINNER AT NOVO SQUARE RESTAURANT	**PwB**		**TUESDAY**

TUESDAY 19th June

T.I: Active continental margins (Chairperson: N. Rawlison)

9.00 am **T.I.1 (KEYNOTE)** *Seismic Image of the Japan Trench Seismogenic Zone and its Implications for Earthquake Processes*
S. Kodaira, Y. Nakamura, G. Fujie, K. Obana, S. Miura & T. Fujiwara

9.40 am **T.I.2** *New findings on structures of the subducted Philippine Sea plate and the overriding SW Japan arc by reinterpretation of previous seismic data in Kii Peninsula*
T. Iwasaki, E. Kurashimo, S. Abe, K. Yokota, T. Iidaka, H. Katao, M. Higashinaka, K. Ito, N. Hirata, H. Isato, T. Ito, A. Nakanishi & Y. Kaneda

10.00 am **T.I.3** *The amplitude variation of the reflected wave from the subducting Philippine Sea plate around the source region of non-volcanic tremor in southwestern Japan*
T. Iidaka, E. Kurashimo, T. Igarashi & T. Iwasaki

10.20 am **T.I.4** *Structural controls on slip behaviours in the Ryukyu subduction zone*
R. Arai, S. Kodaira, T. Takahashi, Y. Yamamoto, S. Miura & Y. Kaneda

10.40-11.10 *Coffee break*

T.II: Active continental margins (Chairperson: V. Sallarès)

11.10 am **T.II.1** *Deep to shallow structures and active tectonics of frontal fold-and-thrust belts in arc-arc collision system: the Kuril-Northeastern Japan arc collision Zone, Northern Japan*
T. Ishiyama, H. Sato, N. Kato & S. Abe

11.30 am **T.II.2** *Configuration of Moho discontinuity beneath Japanese Islands characterized by failed rift system with shallow Moho derived from the standard three-dimensional seismic velocity structure obtained by seismic tomography*
M. Matsubara & H. Sato

11.50 am **T.II.3** *Seismic images of the North Chilean subduction zone prior to the 2014 Iquique earthquake*
I. Storch & S.Buske

12.10 pm **T.II.4** *The seismic structure of the Calabrian subduction system (Central Mediterranean): new insights into crustal construction and mantle hydration from wide-angle seismic data*
M. Prada, V. Sallarès, A. Calahorrano, C. Ranero, I. Grevemeyer & N. Zitellini

12.30 pm **T.II.5** *Constraining the structural style and earthquake geology of the Himalayan foreland fold and thrust belt in central and eastern Nepal with active source seismic data*
R. Almeida, J. Hubbard, L. Liberty, A. Foster & S. Sapkota

12.50-14.00 *Lunch*

T.III: Innovative seismic acquisition and processing techniques
(Chairperson: C. Schmelzbach)

14.00 pm **T.III.1** *Fibre-optic strain sensing: new developments for seismic surveying*
C. Krawczyk, P. Jousset, T. Reinsch, T. Ryberg, H. Blanck, A. Clarke, R. Aghayev, G. Hersir & M. Weber

14.20 pm **T.III.2** *Seismic exploration of the Kylylahti sulphide deposit using underground conventional and DAS VSP data*
M. Riedel, C. Cosma, N. Enescu, E. Koivisto, K. Komminaho & M. Malinowski

14.40 pm **T.III.3** *How useful is DAS in hard rock environments of Australia?*
M. Urosevic, R. Pevzner & A. Bona

15.00 pm **T.III.4** *4D Seismic Imaging using Permanent Fibre-Optic and Geophone Systems: Experience from the Aquistore CO2 Storage Site, Saskatchewan, Canada*
D. White, L. Roach, K. Harris & S. Cheraghi

15.20-15.50 *Coffee break*

T.IV: Innovative seismic acquisition and processing techniques
(Chairperson: M. Cyz)

15.50 pm **T.IV.1** *Field comparison of direct and array-derived rotation measurements*
C. Schmelzbach, M. Häusler, H. Igel, F. Guattari, J. Wassermann, D. Sollberger, C. Van Renterghem, E. de Toldi & J. Robertsson

16.10 pm **T.IV.2** *Imaging of crooked-line seismic data: The cross-dip correction revisited*
R. Behrendt & C. Juhlin

16.30 pm **T.IV.3** *Anisotropic P-wave traveltime tomography implementing Thomsen's weak approximation in TOMO3D*
A. Meléndez, E. Jiménez, V. Sallares & C. R. Ranero

18.00-19.30 *Dinner*

19.30-21.00 ***Posters with beverages***

	9am	10 am	11am	12am	1pm	2pm	3pm	4pm	5pm	6pm	7pm	8pm	
WEDNESDAY	**O.W.I**	**CB**	**O.W.II**		LUNCH AT NOVO SQUARE RESTAURANT		**Mid-conference city sightseeing with confernece dinner (meeting point hotel lobby 2.30 pm)**						**WEDNESDAY**

WEDNESDAY 20th June

W.I: Seismic imaging for earth hazards, resources and near-surface
(Chairperson: A. Malehmir)

9.00 am	**W.I.1** *Enhanced bandwidth in Seismic and Magnetotelluric Exploration for Minerals* D. B. Snyder, H. Gibson, M. Naghizadeh, R. Smith, S. Cheraghi & R. Sherlock; D. White
9.20 am	**W.I.2** *Adjoint-state FWI of streamer data in the upper plate of the Nicaragua subduction zone* D. Dagnino, E. J. Tejero, V. Sallares & C. R. Ranero
9.40 am	**W.I.3** *Towards a new model for assessing seismic risk from crustal earthquakes in the overriding plate: source fault geometry, stress field changes, and crustal deformation in the Japan arc* H. Sato, A. Hashima, T. Ishiyama, T. Iwasaki, N. Kato, S. Abe, M. Matsubara & A. Van Horne
10.00 am	**W.I.4** *Reprocessing of a vintage 2D reflection seismic line across the Norcia-Mt. Vettore faults, Area of the Mw = 6.5 earthquake (2016-2017 sequence, Central Italy)* M. Ercoli, D. Marti & R. Carbonell
10.20 am	**W.I.5** *Reflection seismic imaging of the causative geological structure of the M5.5 earthquake (2014) in South Africa* M. Manzi, A. Malehmir & R. Durrheim
10.40-11.10	*Coffee break*

W.II: Seismic imaging for earth hazards, resources and near-surface
(Chairperson: C. Krawczyk)

11.10 am	**W.II.1** *A MEMS-based 3C seismic landstreamer for various urban infrastructure and mining applications* A. Malehmir
11.30 am	**W.II.2** *Random array seismic data acquisition for 3D subsurface characterization in urban and near-surface environments* B. Brodic, A. Malehmir, M. Svensson, O. Friberg & J. Jonsson
11.50 am	**W.II.3** *High-resolution seismic imaging of dyke swarms within the Tornquist Zone (Sweden) and their implications for thermal energy storage* A. Malehmir, B. Bergman, A. Andersson, R. Sturk & M. Johansson
12.10 pm	**W.II.4** *High-resolution shear-wave reflection seismics and borehole seismics as tools for the imaging and the characterization of near-surface sinkhole areas* S. H. Wadas, S. Tschache, U. Polom, C. M. Krawczyk, D. C. Tanner & H. Buness
12.30 pm	**W.II.5** *Reliable determination of the reflector azimuth from borehole acoustic cross-dipole data* O. Hellwig & S. Buske
12.50-14.00	*Lunch*
14.30	***Mid-conference city sightseeing with conference dinner***

	9am	10 am	11am	12am	1pm	2pm	3pm	4pm	5pm	6pm	7pm	8pm	

THURSDAY	O.TH.I	CB	O.TH.II	LUNCH AT NOVO SQUARE RESTAURANT	O.TH.III	CB	O.TH.IV	OPEN DISCUSSION		DINNER AT NOVO SQUARE RESTAURANT	PwB	THURSDAY

THURSDAY 21st June

TH.I: Advanced seismic imaging and inversion methods including FWI and interferometry (Chairperson: A. Calvert)

9.00 am **TH.I.1 (KEYNOTE)** *Next leap forward in seismic crustal imaging: Full Waveform Inversion of 3D 4C OBS data*
S. Operto, H. Aghamiry, L. Combe, V. Dolean, A. Gorszczyk, L. Métivier, A. Miniussi, S. Sambolian & P. H. Tournier

9.40 am **TH.I.2** *Synthetic study on the crustal-scale imaging via FWI of the 3D OBS data – building a realistic benchmark model of a subduction zone*
A. Górszczyk, S. Operto & L. Combe

10.00 am **TH.I.3** *Detailed crustal imaging in the Nankai Trough subduction zone using OBS-airgun data*
G. Fujie, T. Sato, K. Shiraishi, A. Nakanishi, S. Kodaira, S. Miura, A. Górszczyk, E. Asakawa, T. Nibe & R. Brossier

10.20 am **TH.I.4** *Slope tomography, stereotomography, double-difference tomography, diffraction tomography and so on*
S. Sambolian, S. Operto, A. Ribodetti & J. Virieux

10.40-11.10 *Coffee break*

TH.II: Advanced seismic imaging and inversion methods including FWI and interferometry (Chairperson: J. Virieux)

11.10 am **TH.II.1** *Appraisal of Instantaneous Phase-Based Functions in Adjoint Waveform Inversion*
C. E. Jiménez Tejero, V. Sallares & C. R. Ranero

11.30 am **TH.II.2** *2D adjoint-state full-waveform inversion of band-limited multichannel seismic data in the Alboran basin (SE Iberia)*
C. Gras Andreu, V. Sallarès Casas, D. Dagnino Vázquez, C. E. Jiménez Tejero, A. Meléndez Catalán & C. Rodríguez Ranero

11.50 am **TH.II.3** *Seismic imaging of the Alpine Fault at the DFDP-2 drill site in Whataroa, New Zealand using 3D VSP data*
V. Lay, S. Buske, S. B. Bodenburg, J. Townend, R. Kellett, M. Savage, C. Nixon, R. Kofman, D. R. Schmitt, A. Constantinou, J. Eccles, D. Lawton, M. Bertram, K. Hall & A. Gorman

12.10 pm **TH.II.4** *Seismic imaging in an anisotropic crystalline environment at the COSC-1 borehole, central Sweden*
H. Simon, S. Buske, F. Krauß, R. Giese, P. Hedin & C. Juhlin

12.30 pm **TH.II.5** *Imaging of near-vertical faults with converted waves*
A. Kashubin

12.50-14.00 *Lunch*

TH.III: Advanced seismic imaging and inversion methods including FWI and interferometry (Chairperson: S. Buske)

14.00 pm **TH.III.1** *Crustal Seismic Reflection Imaging using Uncontrolled Sources and Large N Arrays*
L. Brown, D. Kim & D. Quiros

14.20 pm **TH.III.2** *Using large N arrays in mineral exploration: the passive seismic experiment in the Kylylahti Cu-Au-Zn mine area, Finland*
M. Chamarczuk, M. Malinowski, D. Draganov, E. Koivisto, S. Heinonen, S. Juurela & COGITO-MIN Working Group

14.40 pm **TH.III.3** *Seismic while drilling imaging: can it replace active seismic surveys?*
M. Asgharzadeh, A. Grant, A. Bona & M. Urosevic

15.00-15.30 *Coffee break*

TH.IV: The continental lithosphere II (Chairperson: P. Hrubcová)

15.30 pm **TH.IV.1** *BASIC: A high-density crustal-scale refraction seismic profile across the Bergslagen ore district, Sweden*
S. Buntin, A. Malehmir, M. Malinowski, H. Thybo, D. Wójcik, T. Janik, A. Shulgin, K. Högdahl, I. Artemieva, C. Juhlin, S. Buske & M. Stephens

15.50 pm **TH.IV.2** *Russian Program «Network of Geotransects & Deep Wells» (current stage & progress)*
I. Yu. Vinokurov, R.B. Serzhantov, O.V. Petrov, A.V. Lipilin, S.N. Kashubin, E.D. Milshtein Yu.M. Erinchek

16.10 pm **TH.IV.3** *Towards a pan-European Deep Seismic Sounding (DSS) European database: Promoting the impact, preservation, and accessibility of the existing wealth of controlled source seismic data*
M. Ivandic, R. Carbonell, R. Roberts & D. Marti

16.30-17.30 pm *Open Discussion: An European database on Deep Seismic Sounding (Wide-angle and Normal Incidence seismic reflection data). A Tool to Promote impact, preservation, and public access moderated by R. Carbonell*

18.00-19.30 *Dinner*

19.30-21.00 ***Posters with beverages***

	9am	10 am	11am	12am	1pm	2pm	3pm	4pm	5pm	6pm	7pm	8pm	
FRIDAY	**O.F.I**	**CB**	**O.F.II**	LUNCH AT NOVO SQUARE RESTAURANT		**Post-conference field trip departure Meeting point: hotel lobby @2pm**							**FRIDAY**

FRIDAY 22nd June

F.I: Mid-ocean ridges and ocean lithosphere

9.00 am **F.I.1 (KEYNOTE)** *Imaging upper crustal structure at the 9°50´N East Pacific Rise using elastic 3-D full-waveform inversion: Implications for crustal accretion*
M. Marjanović, A. Stopin, R.-É. Plessix, S. Singh & C. Haneveld

9.40 am **F.I.2** *OSCAR – Oceanographic and Seismic Characterisation of heat dissipation and alteration by hydrothermal fluids at an Axial Ridge*
R. Hobbs & OSCAR Science Party

10.00 am **F.I.3** *Exploring the lithosphere-asthenosphere boundary (LAB) with active-source seismic methods*
T. Stern, P. Herath, S. Henrys, S. Lamb

10.20 am **F.I.4** *Preliminary results of the Logachev Seamount seismic modeling*
D. Wójcik, W. Czuba, T. Janik, V. Schlindwein, F. Schmid

10.40-11.10 *Coffee break*

F.II: Continental rifts and sedimentary basins + Intra-contitnental deformation, collinsion and accreation (Chairperson: S. Mazur)

11.10 am **F.II.1** *Western Eger Rift in Central Europe: active magmatic emplacement from combined seismic and isotope study*
P. Hrubcová, W. H. Geissler, K. Bräuer, V. Vavryčuk, Č. Tomek, H. Kämpf

11.30. am **F.II.2** *Combining of alternative versions of wide-angle reflection/refraction and near-vertical reflection data processing in the area of folded belts of the Southern Siberia, Russia*
A. Rybalka, T. Kashubina, P. Lebedkin, D. Viatkina, E. Melnik, A. Suleimanov

11.50 am **F.II.3** *On Mesozoic regional uplifts in SE and N Poland – insight from regional seismic data*
P. Krzywiec, A. Stachowska, A. Stypa, Ł. Słonka, M. Kufrasa

12.10 pm **F.II.4** *A tale of weak crust in northern England: multiple extension and multiple inversion*
T. Pharaoh, R. Haslam, E. Hough, K. Kirk, G. Leslie, D. Schofield

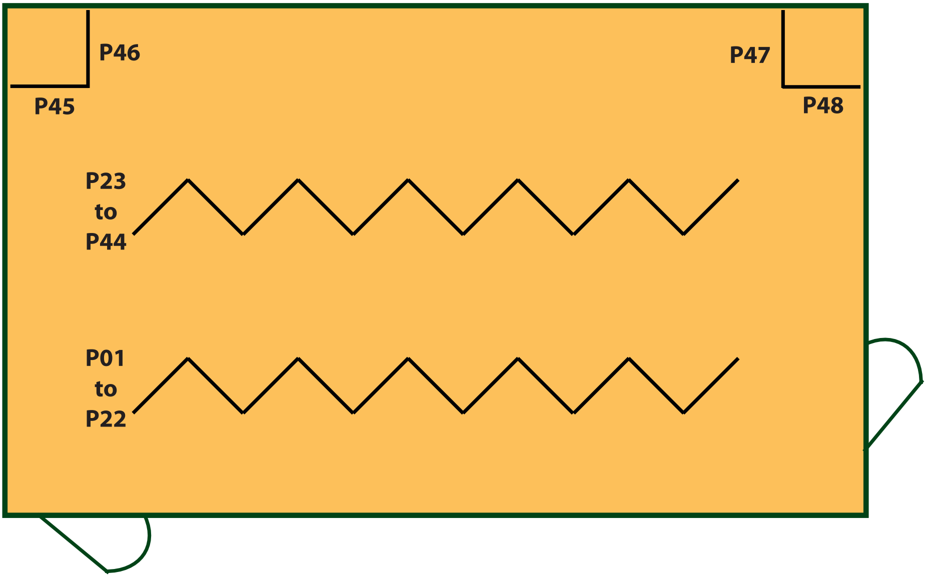
12.30-13.40 *Lunch*

End of the meeting and post-conference fieldtrip departure

Posters

Posters are supposed to be on display between Monday morning – Thursday evening in the Batory Conference Room. Official poster viewing time is allocated between 7.30 pm and 9.00 pm (Mon-Thu, excluding Wednesday).

Poster sessions (Batory)



Mounting time:
Monday, 10:00 am – 7:30 pm

Removal time:
Thursday, 9:00 pm – 10:00 pm

P01	*Failed rift system in northern Honshu, Japan, imaged by the improved standard seismic velocity structure beneath the Japanese Islands using offshore earthquake events* M. Matsubara & H. Sato
P02	*2017 Deep seismic reflection profiling across the western part of the Hidaka collision zone and the Ishikari foreland basin, Hokkaido, Japan* H. Sato, T. Ishiyama, N. Kato, H. Shimizu, S. Kawasaki, S. Abe & S. Yokoi
P03	*Tomography model of the outer fore arc of the Ecuador-Colombia subduction zone using TOMO3D: 3-D velocity distribution and 2-D geometry of the interplate boundary* A. Meléndez, V. Sallarès, D. Terzić & P. M. A. Buinheira
P04	*Anisotropic P-wave traveltime tomography implementing Thomsen's weak approximation in TOMO3D* A. Meléndez, E. Jiménez, V. Sallarès & C. R. Ranero
P05	*Adjoint-state FWI of streamer data in the upper plate of the Nicaragua subduction zone* D. Dagnino, E. J. Tejero, V. Sallares & C. R. Ranero
P06	*Estimation of the uncertainty in seismic tomography* B. Owoc & M. Majdański
P07	*The large-N and large-T Maupasacq experiment – A very dense seismic network to image the deep architecture of the western Pyrenees* S. Chevrot, M. Sylvander, J. Diaz, A. Villaseñor, N. Martakis, K. Ploychronopoulou, A. Bitri, M. Colin, E. Masini, S. Calassou, S. Beller, R. Martin, L. Stehly & P. Boué
P08	*The structure of the Spanish Central System and surrounding basins from ambient noise autocorrelations and controlled source data* J. Andrés
P09	*Retrieving Moho reflections from high-frequency autocorrelations of ambient noise* J. Andrés
P10	*Characterization of sinkhole areas using elastic parameters and seismic attributes derived from reflection seismic* S. H. Wadas, S. Tschache, U. Polom & C. M. Krawczyk

P11	*Shear-wave, very shallow seismic reflection profiling across the Kamishiro fault, Itoigawa-Shizuoka tectonic Line active fault system, central Japan* N. Ikeguchi, N. Matsuta, K. Kagohara, S. Okada, D. Hirouchi, T. Ishiyama, K. Noda & H. Sato
P12	*Near-surface structure of the Carpathian Foredeep marginal zone in the Roztocze Hills area* M. Majdański, J. Grzyb, B. Owoc, T. Krogulec & A. Wysocka
P13	*Seismic signature of massive sulfide ore body: A case study from Pyhäsalmi, Finland* G. Gislason, S. Heinonen & O. Ahmadi
P14	*Seismic reflections from Northern Finland: Experiment of Sodankylä Deep Exploration* S. Heinonen, S. Buske, E. Kozlovskaya, T. Karinen, H. Leväniemi, S. Niemi & H. Silvennoinen
P15	*Characterization of the Lower Paleozoic Shales in Northern Poland from the Analysis of Wide Azimuth Seismic Data* M. Cyz, M. Malinowski, M. Mulińska & R. Pachytel
P16	*Reprocessing of a vintage 2D reflection seismic line across the Norcia-Mt. Vettore faults, Area of the Mw = 6.5 earthquake (2016-2017 sequence, Central Italy)* M. Ercoli, D. Marti & R. Carbonell
P17	*Imaging of near-vertical faults with converted waves* A. Kashubin
P18	*Mapping depth-to-basement using joint inversion of gravity, seismic and borehole data – a case study from eastern and central Poland* M. Mikołajczak, S. Mazur & Ł. Gągała
P19	*Imaging East European Craton margin in Northern Poland using extended-correlation processing applied to regional seismic profiles* M. Mężyk & M. Malinowski
P20	*Late Archean continental spreading inferred from seismic reflection images of the Australian Yilgarn craton* A. Calvert & M. Doublier
P21	*High-resolution seismic survey at a planned PIER-ICDP fluid-monitoring site in the Eger Rift zone, Czech Republic* H. Simon, S. Buske & T. Fischer

P22	*High-resolution 3D seismic reflection and VSP survey at the deep geothermal research platform Groß Schönebeck/Germany* M. Stiller, K. Bauer, J. Henninges, E. Martuganova, B. Norden, C. Krawczyk, E. Huenges & A. Ivanova
P23	*Eastern segment of the "1-SB" profile – a 1200 km long integrated wide-angle reflection/refraction and near-vertical reflection profile across the folded belts of the Southern Siberia, Russia* D. Vyatkina, T. Kashubina, A. Rybalka, N. Zamozhyaya & V. Klimenko
P24	*Imaging Deep Structures Using Advanced Techniques* M. Giustiniani, U. Tinivella & R. Nicolich
P25	*KNIPAS – exploring active seafloor spreading processes at segment-scale* V. Schlindwein, F. Krüger, F. Schmid, W. Czuba & T. Janik
P26	*High P-wave speeds in the upper mantle and their possible association with superplumes* T. Stern, S. Lamb, K. Mochizuki, J. Moore & D. Okaya
P27	*Imaging exhumed lower continental crust in the distal Jequitinhonha basin, Brazil* A. Loureiro, P. Schnürle, F. Klingelhöfer, A. Afilhado, J. Pinheiro, M. Evain, N. A. Dias, M. Moulin, D. Aslanian & Salsa team: L. Matias, F. Gallais, M. Rabineau, A. Baltzer, M. Benabdellhouahed, J. Soares, R. Fuck, J. Cupertino, A. Viana
P28	*Seismic anisotropy of the crust and lithospheric mantle of Madagascar and Mozambique* K. Khelfi, G. Lamarque, M. Evain, P. Schnurle, M. Moulin, D. Aslanian, A. Afilhado, S. Gonçalves, A. Loureiro & N. A. Dias
P29	*Understanding the seismic anisotropy of the northeast Brazilian lithosphere: a receiver function analysis* G. Lamarque & J. Julià
P30	*Evolution of the North-East Eurasian passive margin according to the Russian Arctic Geotransects* I.Yu. Vinokurov, O.V. Petrov, S.N. Kashubin, E.D. Milshtein, E.A. Androsov, Yu.S. Golysheva, N.A. Krupnova & T.M. Yavarova

P31	*The crustal structure of the Chatham Rise and Chatham Terrace – A key region for understanding the separation of Zealand from Antarctica* F. Riefstahl, K. Gohl, B. Davy, N. Mortimer & E. Jolis
P32	*Quantifying Amplitude Fit in WAS modelling: AMPFIT preliminary tests* A. Afilhado, P. Schnurle, S. Aleixo, D. Aslanian, L. Matias, M. Moulin, A. Loureiro, M. Evain, N. A. Dias & M. Rabineau
P33	*Deep seismic structure across the Camamu triple junction (Brazil) from coincident wide-angle and multichannel seismic data* A. Afilhado, P. Schnurle, A. Loureiro, F. Gallais, M. Evain, J. Pinheiro, A. Viana, M. Moulin, D. Aslanian & Salsa team: F. Klingelheofer, J. Soares, R. Fuck, M. Vinicius de Lima, N. Dias, L. Matias, C. Corela, J.L. Duarte, D. Alves, M. Sobrinho, F. Lima, R. De Oliveira, P. Resende, J.A. Cupertino, I. Rio., A. Baltzer, M. Benabdellouahed, M. Rabineau
P34	*Evidence for Rift Migration of the Hyper-Extended Margin in the Northeast South China Sea* C. Lu, T. Hao, S.-K. Hsu & B.-S. Huang
P35	*Co-located magmatic and non-magmatic rifted margins off south-west Australia* R. Hobbs, D. M. Michelioudakis, I. B. Borissova, L. White, D. Harry & IODP Expedition 369 Scientists
P36	*Insights on the crustal structure of the Natal Valley from combined wide-angle and reflection seismic data (MOZ3/5 cruise), South Mozambique Margin* A. Leprêtre, F. Verrier, M. Evain, P. Schnurle, D. Aslanian, P. De Clarens, N. Dias, A. Afilhado, S. Gonçalves, M. Moulin & MOZ3/5 Team
P37	*Crustal structure of the Sergipe Alagoas passive margin, NW Brazil, from combined wide-angle and reflection seismic data (SALSA cruise)* P. Schnürle, J. M. Pinheiro, M. Evain, F. Gallais, A. Viana, A. Afilhado, N. A. Dias, J. E. Soares, M. Moulin & D. Aslanian
P38	*Deep structure across the Tucano rift and Jacuipe margin from onshore-offshore wide-angle seismic data* F. Gallais, M. Evain, P. Schnürle, A. Afilhado, A. Loureiro, J. M. Pinheiro, J. A. Cupertino, A. Viana, M. Moulin & D. Aslanian

P39	*The crustal structure of the Porcupine Basin, offshore Ireland* M. Prada, L. Watremez, Ch. Chen, L. Whiting, J. Fullea, B. O'Reilly, T. Minshull, T. Reston, P. Shannon, P. Haughton & D. Klaschen
P40	*3D wide-angle seismic tomography, MOZ3-5: Insights on Natal Valley, offshore Mozambique* S. Gonçalves, A. Loureiro, A. Afilhado, P. Schnurle, A. Leprêtre, P. De Clarens, M. Evain, D. Aslanian, M. Moulin & MOZ35 Team: F. Verrier, N. A. Dias, R. Micaela, C. Corela, B. Massingue, H. Inguane
P41	*Seismic imaging of volcanism and rift system in the Okinawa Trough back-arc basin* R. Arai, S. Kodaira, T. Takahashi, S. Miura & Y. Kaneda
P42	*Seismic interpretation of the Upper Jurassic carbonate buildups from the Nida Trough (S Poland)* Ł. Słonka, P. Krzywiec, J. Jarzyna, E. Puskarczyk, P. Krakowska & K. Wawrzyniak-Guz
P43	*Inversion-related Upper Cretaceous contourites within the Polish Basin – their seismic expression and geodynamic significance* P. Krzywiec, A. Stachowska, U. Schattner & A. Popiela
P44	*A regional graphite décollement level beneath the NW Pannonian Basin: crustal-scale implications* G. Tari, V. Nemeth, F. Horvath & P. Krzywiec
P45	*Anomalous upper-mantle phases in the Western Carpathians: Indication of the ALCAPA and the European Plate contact* P. Hrubcova & P. Środa
P46	*RomUkrSeis: the deep structure of the TESZ where it is obscured by the Eastern Carpathians* RomUkrSeis Working_Group: T. Amashukeli, W. Czuba, A. Dragut, D. Gryn, T. Janik, K. Kolomiyets, O. Legostaeva, D. Lysynchuk, J. Mechie, V. Mocanu, J. Okoń, V. Omelchenko, T. Skrzynik, V. Starostenko, R. Stephenson, P. Środa & T. Yegorova
P47	*Layered azimuthal anisotropy in the region adjacent to the Arabia-Eurasia collision zone* S. Pilia, P. Arroucau, M. Ali & A. Watts
P48	*Passive seismic experiment in Sudetes, SW Poland* P. Środa, M. Dec & Working Group: M. Grad, J. Grzyb, T. Janik, M. Polkowski, T. Skrzynik, M. Wilde-Piórko, D. Wójcik

Social events

Wednesday | June20 th2018

Mid-conference city sightseeing with conference dinner.
Event included in the registration fee.

Meet us at the Hotel Novotel Kraków Centrum lobby at 2.30 pm.
You will be divided into separate groups to make your visit in the city more convenient. Groups will be collected from each 30 people coming to the lobby. Each group will have a separate English speaking guide.

Take a comfortable shoes with you as it all will be a walking tour (it is prohibited to drive a coach at the historical center of Cracow).
Small refreshment (drink and snack) will be provided during the tour.
After sightseeing is finished, our guides will take you straight to the conference dinner venue.

Dinner starts at 7 pm.

During the tour you will see the historical part of the city and Wawel Castle.

Conference dinner venue:
Galicia Jewish Museum
Ul. Dajwór 18
31-052 Cracow

Accompanying events

Seismic Processing Workshop

GLOBE Claritas
seismic processing software

Separate registration is required.

This one-day workshop serves as an introduction to the fundamentals of land seismic data processing. It provides a brief theoretical background in geophysics, reinforced with some practical processing experience using GLOBE Claritas™ software. The objectives of seismic processing are explained, with a focus on the consequences and pitfalls of processing decisions on the final seismic image.

When: 17th June 2018
Where: Batory conference room

Detailed itinerary:
Start: 9 am
Morning Tea/Coffee Break 10:30 am
Lunch Break: 12:30 am – 1:30 pm
Afternoon Tea/Coffee Break 3:00 pm
Finish 4:00-4:30 pm

About the Workshop

The workshop is designed to give attendees practical experience in key aspects of processing land and marine seismic data. Aspects covered will include:

- Land Processing fundamentals: Geometry, Statics, and Velocity analysis
- High Density Velocity Analysis.
- NDimensional interpolation.
- 3D Imaging solutions – PreSTM etc

The datasets are seismic lines from Taranaki, New Zealand, that will be used in conjunction with supplied workflows and support data.

Users will leave the workshop with a bootable USB Drive with Linux and Claritas installed and a month evaluation license of the software.

Recommended Background

This course requires no previous seismic processing knowledge.

Post-conference field trip

The field excursion will depart from Novotel Kraków Centrum Hotel on Friday (June 22) at 2.00 pm.
Meeting point: Novotel Kraków Centrum lobby.

The aim of the field trip is to visit classic geological sites illustrating a complex Paleozoic and Mesozoic tectonostratigraphic evolution of S-SE Poland – an area adjacent to the Teisseyre-Tornquist Zone, i.e. one of the most fundamental geological boundaries in Europe. Discussions on particular geological outcrops will be augmented by presentation of seismic reflection profiles, including the recently acquired industry data and deep seismic profiles of the PolandSPAN and POLCRUST surveys. An overall aim of this field trip is to provide as tight as possible integration of seismic constraints with surface geology. Good accessibility of all the outcrops and relatively short distances between them guarantee that most of the time will be spent on discussing field geology and relevant seismic data. Semi-formal evening discussions will be also organized to allow for better understanding of the regional geological context of this very interesting area and a more detailed discussion of various seismic datasets, supplemented with the recently completed analysis of gravity and magnetic data.

The first part of the field trip will focus on the geology of the Silesian-Kraków Monocline and the Polish Jura Chain. First, we will be examining effects of the late Carboniferous–Permian wrenching and associated volcanism along the Kraków-Lubliniec

Fault, located between the Upper Silesian Block (Brunovistulicum) and the Małopolska Block, the fault that is considered part of the transcontinental Hamburg – Kraków – Dobrogea strike-slip fault zone. Then, a Mesozoic history will be discussed, with a particular focus on the Upper Jurassic (Oxfordian) carbonate build-ups that presently form monadnocks of the Polish Jura Chain.

The next part of the field trip will take us to the Holy Cross Mountains that could be treated in many respects as a cradle of the Polish geology. There, the main theme will be Variscan (late Carboniferous) orogeny that resulted in formation of regional unconformity covered by the Permian to Cretaceous sedimentary cover of the Polish Basin. Variscan orogenic movements led to intense compressional deformations of the Paleozoic sedimentary cover – features imaged on the recent high-quality seismic data acquired within the Radom-Kraśnik Block and the Lublin Basin adjacent to the Holy Cross Mountains. Finally, a tectonosedimentary effect of the Late Cretaceous inversion of the Polish Basin will be studied and discussed taking into account seismic data that imaged similar features in the SE part of this basin.

Field trip will also provide a glimpse into the fascinating medieval history of this part of Poland, and into the development of geology and geological cartography in XVIII – XIX century.

Accommodation:

22-25 June 2018

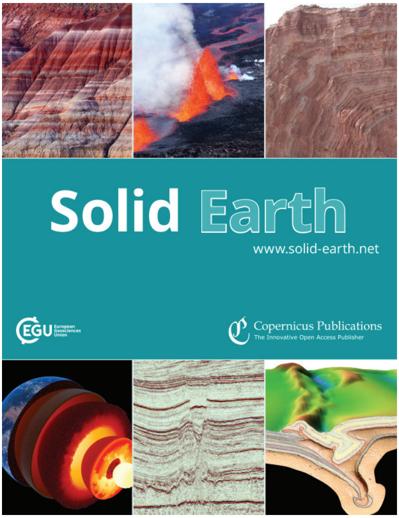
Hotel Centuria Wellness & SPA***
Centuria 1
42-440 Ogrodzieniec

25-28 June 2018

Hotel Uroczysko Spa & Business
Cedzyna 44D
25-900 Kielce

Post conference special issue

Post conference special issue in the Solid Earth journal:



Advances in seismic imaging across the scales

Editors:
Ch. Krawczyk,
M. Malinowski,
R. Carbonell,
N. Rawlinson

Useful Information A-Z

A

- Abstract book
  Electronic version only available at http://seismix2018.pl/abstracts and conference USB stick.

- Airport information
  Cracow Balice Airport Information +48 801 055 000 / +48 12 295 58 00
  Warsaw Chopin Airport Information +48 22 650 42 20

C

- Cloakroom
  Cloakroom is located on conference floor next to conference room.

- Currency
  The currency in Poland is the Polish Złoty (PLN) 1 PLN = 100 groszy.
  Coins circulate in denominations of 1 PLN, 2 PLN, 5 PLN and 10, 20 and 50 groszy; banknotes are in denominations of 10, 20, 50, 100 and 200 PLN.
  In some larger stores, such as hypermarkets, and at some cash-only windows, you can pay in Euros. You must notify the cashier that you will be paying in Euros, but note that it is not a popular currency in Poland yet, and chances are that your change will be given in PLN.

D

- Doctor
  Cor Vita medical Centre
  Location: Tadeusza Kościuszki 35,
  30-105 Kraków
  Phone: (+48) 12 429 35 35 /
  (+48) 12 429 36 63

E

- Electricity
  In Poland, the voltage is 230V, 50 Hz. The plug is the standard European double plug.

- Emergency calls:
  Emergency 112
  Police 997
  Ambulance 999
  Fire Brigade 998
  City Guard 986

F

- First Aid
  No first aid is available at Novotel Kraków Centrum Hotel nor by the Conference. In case of emergency, dial 112 to get specialised help.

I

- Internet
  Free Wi-Fi internet connection is available at the hotel.
  Network: NOVOTEL KRAKÓW CENTRUM
  Password: any e-mail

L

- Lost & Found
  Lost & Found service is available at the registration during opening hours.

P

- Parking
  Novotel Kraków Centrum Hotel garage parking fee:
  6 PLN hourly | 60 PLN daily

  Paying parking zone
  Please note that the whole of the centre of Cracow (which is where Novotel Centrum Hotel is located) is a paying parking zone. This rule applies from Monday to Friday, from 10 am to 8 pm. On Saturdays, Sundays and public holidays parking is free.
  Detailed map paying parking zones at http://mi.krakow.pl/strefa-platnego-parkowania/mapa-strefy

  Fees for the successive hours of parking in the zone:
  for the first hour – 3,00 zł
  for the second hour – 3,50 zł
  for the third hour – 4,10 zł
  for the fourth and next hours – 3,00 zł
  The minimal fee is 1,00 zł and it allows to park for 20 minutes.

- Pharmacy
  Apteka Słoneczna – closest to the hotel
  Address: Kazimierza Morawskiego 8 str. | 2 min. walking distance
  phone: (+48) 12 427 13 17
  open Monday to Friday 07:00-21:00 | Saturday: 08:00-15:00
  Dr. Max – open 24h/7
  Address: Karmelicka 23 Str.
  phone: (+48) 12 631 19 80

- Poster printing
  There is no possibility to print your poster at the conference venue. For a list of print services around the venue contact conference registration desk.

- Public transportation
  For a details refer to https://www.inyourpocket.com/krakow/Getting-Around-Krakow

R

- Registration desk opening hours:
  Sunday (17th June) 14.00 pm – 20.00 pm
  Monday (18th June) 8.00 am – 19.30 pm
  The organizers (wearing special badges) will be available onsite to help you any time during the conference.
  Note that the presentations will be collected directly in the conference room.
  Phone: +48 502 056 900

T

- Taxis
  For a details refer to https://www.inyourpocket.com/krakow/Getting-Around-Krakow

V

- Venue address
  Novotel Kraków Centrum
  Tadeusza Kościuszki 5 Str.
  30-105 Cracow

Acknowledgements

The organisers would like to thank the following companies for their generous support of the SEISMIX2018 Symposium

Honorary patronage

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Notes