

XII. Slovak Geophysical Conference

Conference Programme

28th September 2017

AMOS centre	Plenar Session	chairman: Bielik M.
8.00 - 9.00	Registration	
9.00 - 9.10	Bielik M., vice-dean, Faculty of Sciences, Comenius University Opening of the Conference	
9.10 - 9.40	Moczo P. Slovak Seismology in 2015 - 2017	
9.40 - 10.10	Vozár J. Geomagnetism and Aeronomy in 2015 - 2017	
10.10 - 10.40	Janák J. Activities in Geodesy and Geodynamics in 2015 -2017	
10.40 - 11.00	coffee break ☕	
11.00 - 11.30	Vajda P. Slovak Gravimetry in 2015 - 2017	
11.30 - 12.00	Pašteka R. Applied Geophysics in 2015 - 2017	
12.00 - 13.30	lunch break	

AMOS centre	Session: Seismology	chairman: Gális M.
13.30 - 13.50	Kristeková M., Kristek J., Moczo P., Gális M. Analysis of 3D simulated seismic wavefields in the media modified by the underground nuclear explosion – the first results	
13.50 - 14.10	Cipciar A., Csicsay K., Chovanová Z., Kristeková M., Fojtíková L., Pažák P., Bystrický E., Moczo P., Kristek J. Earthquakes in Slovakia in the period 2015-2016	
14.10 - 14.30	Kysel R., Cipciar A., Csicsay K., Chovanová Z. Re-evaluation of macroseismic intensities for 1941 Strážske, 1967 Dobrá Voda and 1988 Trenčianske Teplice earthquakes	
14.30 - 14.50	Fojtíková L. Tectonic stress regime in the 2003-2004 and 2012-2015 earthquake swarms	
14.50 - 15.20	coffee break ☕	
15.20 - 15.40	Stripajová S., Kristek J., Moczo P., Bard P.Y., Hollender F. The effect of small-scale random heterogeneities in local sedimentary structures on earthquake ground motion	
15.40 - 16.00	Gregor D., Moczo P., Kristek J. Numerical testing of a new discrete representation of a poroelastic interface – the first results	
16.00 - 16.20	Kubina F., Michlík F., Moczo P., Kristek J., Stripajová S. Adjoint-tomography of Local Surface Sedimentary Structures	
16.20 - 16.40	Bednárík M., Kohút I. Temperature dependence of inconsistency of the complex viscoelastic shear modulus of basaltic lavas witnessed by their relaxation time spectra	

CPS plus centre	Session: Applied Geophysics	chairman: Brimich L.
13.30 - 13.50	Alasonati Tašárová Z., Fullea J., Bielik M., Šroda P. 3D geophysical-petrological modelling of the lithospheric structure from Pannonian basin to Trans-European suture zone	
13.50 - 14.10	Šefara J.†, Bielik M., Vozár J., Katona M., Szalaiová V., Vozárová A., Šimonová B., Pánisová J. Gemic granites of the Western Carpathians: 3D density modelling	
14.10 - 14.30	Šimonová B., Bielik M., Zeyen H. Determination of rock densities and integrated geophysical modelling of the continental lithospheric structure in the Western Carpathians and Pannonian Basin	
14.30 - 14.50	Kušnirák D., Pašteka R., Dostál I., Putiška R. ERTmod – an in-house electrical resistivity tomography inversion software	
14.50 - 15.20	coffee break ☕	
15.20 - 15.40	Pašteka R., Zahorec P., Kušnirák D., Božanský M., Papčo J., Szalaiová V., Krajňák M., Marušiak I., Mikuška J., Bielik M. High resolution Slovak Bouguer gravity anomaly map and its enhanced derivative transformations: new possibilities for interpretation of anomalous gravity fields	
15.40 - 16.00	Gajdoš V., Gajdoš M. Georadar images of road construction	
16.00 - 16.20	Baulovič J., Kondela J. a Pandula B. Research impact velocities of seismic waves on optimalization of blasting effects in the quarry Trebejov	
16.20 - 16.40	Mojzeš A., Grand T., Daniel S., Vaník J., Borovský M., Kováčik J., Grand A. Airborne gamma-ray spectrometry survey - an overview of procedures	
16.40 - 17.00	Tomek Č. Some thoughts abot the origin of the Tatra Mountains	
17.00 - 19.00	Poster Session	
18.00 - 22.00	Social Event (AMOS centre)	

29th September 2017

AMOS centre	Session: Geodesy, Gravimetry and Geodynamics	chairman: Janák J.
9.00 - 9.20	Droščák B. History and the current status of the gravimetric baselines on the territory of Slovakia	
9.20 - 9.40	Bublavý J., Droščák B. Creation of the new reference frame of the Baltic vertical system after adjustment	
9.40 - 10.00	Majkráková M., Papčo J., Droščák B. The study of recent vertical movements using very precise levelling measurements – first results in the central part of Slovakia	
10.00 - 10.20	Lederer M., Nesvadba O. Project of a calibration and densification of the gravity data in the Czech Republic	
10.20 - 10.40	coffee break ☕	

AMOS centre	Session: Geodesy, Gravimetry and Geodynamics	chairman: Janák J.
10.40 - 11.00	Brimich L., Bednárík M., Bezák V., Kohút I., Bán D., Eper-Pápai I., Mentés G. Extensometric observation of Earth tides and local tectonic processes at the Vyhne station, Slovakia	
11.00 - 11.20	Papčo J., Zahorec P., Pašteka R., Fraštia M., Plakinger M., Bakoň M., Czikhardt R., Leško M. Geodetic and Geophysical monitoring of Koš undermined area	
11.20 - 11.40	Czikhardt R., Papčo J. Ground Stability Monitoring of the Sub-Tatra Basin by Means of Sentinel-1 Multi-Temporal InSAR	
11.40 - 12.00	Čunderlík R., Kollár M. High-resolution modelling of the static gravity field from the GOCE gravity gradients in spatial domain	
12.00 - 12.20	coffee break ☕	
12.20 - 12.40	Mojzeš M., Husár L., Janák J., Papčo J., Hefty J., Gerhátovej L., Mináriková M. Monitoring of Earth's surface deformation in the area of Slovakia	
12.40 - 13.00	Mikuška J., Zahorec P., Papčo J., Karcol R., Marušiak I. Surface rock density interpretation from detailed gravity measurements based on free-air anomalies and near topographic effects in a terrain with sufficient relative relief	
13.00 - 13.20	Zahorec P., Vajda P., Papčo J. Vertical gradient of gravity on Teide volcano - prediction, verification and significance	
13.20 - 13.40	Krajňák M. Terrain corrections: example of comparison between scientific and commercial software	

CPS plus centre	Session: Geomagnetism	chairman: Ševčík S.
9.00 - 9.20	Guba P. Dynamics of convection and solidification in ternary systems	
9.20 - 9.40	Brestenský J., Šimkanin J., Guba P., Kyselica J., Ševčík S., Šoltis T. News About the Natural Dynamos	
9.40 - 10.00	Marsenić A. Dynamo or Gyroscope?	
10.00 - 10.20	Valach F., Hejda P., Revallo M., Bochníček J. The magnetic superstorm on 17 November 1848 as a possible 'Carrington-like' event	
10.20 - 10.50	coffee break ☕	
10.50 - 11.10	Ševčík S., Ondrášková A. Can number of transients/Q-bursts in ELF-band be a suitable criterion for the global thunderstorm activity estimation?	
11.10 - 11.30	Revallo M., Valach F., Hejda P., Bochníček J. Geomagnetic activity affected by solar events and solar energetic particle fluxes	
11.30 - 11.50	Vozár J., Moorkamp M., Jones A.G., Rath V., Reay D. Geophysical 3D joint inversion applied on sedimentary basin with geothermal potential	

Poster Session

Krajňák M.

New CBA map interpretation in wider region of Bratislava

Váczyová M.

Measurements of the total field at the Hurbanovo Geomagnetic Observatory

Pitoňák M., Eshagh M., Šprlák M., Tenzer R.

Spectral downward continuation of gravitational curvatures and its implications for future gravity field missions

Majcin D., Král M., Bilčík D., Šujan M., Vranovská A.

Deep geothermal sources for electricity production in Slovakia: thermal conditions

Majcin D., Klanica R., Bezák V., Pek J., Vozár J., Bilčík D., Telecký J.

Flysch belt, Klippen belt and Inner Western Carpathian Paleogene basin relation in the NE Slovakia by magnetotelluric imaging.

Levashov S.P., Yakymchuk N.A., Korchagin I.N., Majcin D., Bozhezha D.N.

Areas of geothermal waters location detection and mapping by the frequency-resonance method of the remote sensing data processing and interpretation (Eastgate,UK)

Brixová B., Mosná A., Šujan M., Rybár S.

Case study of shallow seismic tomography from South-West slopes in Malé Karpaty Mts. (Western Carpathians)

Mosná A., Gajdoš V., Rozimant K.

Glacifluvial sediments and their resistivity in Bela river (Liptov basin)

Smetanová I., Holý K., Müllerová M., Kunáková L., Čech V.

Radon monitoring in the Važecká cave, Slovakia

Budinský V.

Examples of application for seismic methods in practice

Kollár M., Čunderlík R., Mikula K.

Nonlinear diffusion filtering methods locally adapted to geodetic data features

Šugár M., Kysel R.

The homogenized macroseismic catalogue for the Slovak national seismic hazard map in terms of macroseismic intensity

Radwan A.H., Dérerová J., Bielik M., Šimonvá B., Kohút I.

Calculation of temperature distribution and rheological properties of the lithosphere along Profile 1 passing through Aswan

Dostál I., Putiška R., Greif V., Tornyai R.

Monitoring of Electromagnetic Emissions on active landslide in Ruská Nová Ves village