

PROGRAMME
7th BGGs NATIONAL CONFERENCE WITH INTERNATIONAL PARTICIPATION
“GEOPHYSICS 2015”

Park Hotel “Moskva”, 25 Nezabravka Str.
Sofia, 20-22 May 2015

Wednesday, 20 May 2015

09:00 - 11:00 REGISTRATION (THE LOBBY IN FRONT OF CONFERENCE ROOM 5)

CONFERENCE ROOM 5

11:00 - 17:00 PLENARY SESSION

Chairman Prof. DSc St. Shanov

11:00 - 12:30 Opening ceremony and celebrating 25th anniversary of the Bulgarian Geophysical Association

- Opening words and brief history of the BgGS (Prof. DSc St. Shanov)
- Welcome addresses and greetings (EAGE, BGS etc.)
- Announcing the Opening of the “Geophysics 2015” Conference (Prof. DSc St. Shanov)

12:30 - 14:00 Lunch break

PLENARY REPORTS

14:00 - 15:00 Prof. PhD Dumitru Ioane (University of Bucharest)

S0-O1: Interpretation of Regional Gravity and Magnetic Anomalies Aided by Seismic Tomography Data (D. Ioane)

15:00 - 15:30 Assoc. Prof. PhD Mustafa Toker (Yuzuncu Yil University)

S0-O2: 3D Strain Estimation and Velocity Analysis of Turkey from GPS data (M. Toker, H. Kutoglu)

15:30 - 16:00 Coffee break

PRESENTATIONS OF SPONSORING ORGANIZATIONS

16:00 - 16:30 T. Sotirov (Total E&P Bulgaria)

S0-O3: The Role of Geophysics in modern deep offshore Exploration, an example from Bulgaria

16:30 - 17:00 Iv. Aleksandrov (Mobecco Solutions)

S0-O4: Perspectives for the use of automated systems to obtain geophysical data

17:00 - 18:30 POSTER SESSION

17:00 - 17:10 Opening the Poster session and the Technical exhibition

18:30 Cocktail

Thursday, 21 May 2015

CONFERENCE ROOM 2

09:00 - 12:20 **SESSION 1: GEOPHYSICS OF THE EARTH'S INTERIOR (INCLUDING REGIONAL GEOPHYSICS, GEOLOGY AND GEODYNAMICS)**

Chairman Prof. DSc D. Dimitrov

09:00 - 09:20 V. Protopopova, Em. Botev, Iv. Georgiev, D. Dimitrov

S1-O1: Focal mechanisms of some earthquakes in Rhodope seismic zone

09:20 - 09:40 D. Dimitrov, Em. Botev, V. Protopopova, M. Everhard, Em. Mihailov, Il. Cholakov, Iv. Georgiev

S1-O2: Geophysics anomalies in Upper-Thracian valley and their connections with the main faults from 14 and 18 April 1928 very strong seismic events and with the recent weak seismicity

9:40 - 10:00 L. Dimitrova, G. Georgieva, R. Raykova, V. Gurev, Ir. Aleksandrova, Pl. Raykova, M. Popova, V. Protopopova

S1-O3: Assessment of the efficiency of seismological equipment in extreme weather conditions in Bulgaria - first stage of Livingston Island seismicity study

10:00 - 10:20 L. Dimitrova, D. Solakov, St. Simeonova, Ir. Aleksandrova, G. Georgieva

S1-O4: Analysis of the seismicity in the region of Mirovo salt deposit in eight-year monitoring

10:20 - 10:40 M. Tsekov, Em. Botev, R. Borisov

S1-O5: Seismicity of the Rhodope zone over the period 1980-2014

10:40 - 11:00 Coffee break

Chairman Assoc. Prof. PhD L. Dimitrova

11:00 - 11:20 M. Tsekov, Em. Botev, Ant. Mokreva, V. Protopopova

S1-O6: On the completeness of Bulgarian earthquake data

11:20 - 11:40 OrI. Dimitrov, At. Vasilev

S1-O7: Comparative analysis of tectonic and natural gas occurrences data in the western part of the Black Sea

11:40 - 12:00 D. Solakov, St. Simeonova, L. Hristoskov, Pl. Raykova, M. Popova

S1-O8: Space-temporal variations of seismicity in Sofia seismic zone during the period 1985-2014

12:00 - 12:20 R. Raykova, G. Panza

S1-O9: Vs structure of the crust and upper mantle in the Balkan Peninsula region

12:20 - 14:00 Lunch break

14:00 - 16:40 **SESSION 2: CLASSICAL AND MODERN TECHNOLOGIES IN GEOPHYSICAL**

PRACTICE

Chairman Assist. Prof. D. Borisova

- 14:00 - 14:20 B. Ranguelov**
S2-O1: Antarctic research – geophysical mini-profiling for rocks differentiation based on radioactivity and magnetic susceptibility
- 14:20 - 14:40 L. Nenkov, V. Ivanova**
S2-O2: Results from deep reperforation works by using high-tech ReActive perforators extracting and upcoming in wells in Central-North Bulgaria
- 14:40 - 15:00 D. Borisova**
S2-O3: Detection of minerals using spectrometric measurements
- 15:00 - 15:20 K. Krezhov, R. Angelova, D. Krezhova, I. Sziklai-László**
S2-O4: Study of biogenic iron oxides by neutron activation analysis and x-ray diffraction
- 15:20 - 16:00 Coffee break**

Chairman Assist. Prof. PhD G. Georgieva

- 16:00 - 16:20 Em. Markov, N. Dimitrov, Iv. Parushev**
S2-O5: Overview of the possible applications of unmanned aerial systems in geophysical surveys
- 16:20 - 16:40 Hr. Nikolov**
S2-O6: Improving classification of rock types in open pit mines using support vector method

16:40 - 17:00 SESSION 7: GEOLOGICAL MODELS ON GEOPHYSICAL DATA

- 16:40 - 17:00 J. Grabowski, V. Idakieva, D. Ivanova, M. Ivanov, I. Lakova, S. Petrova, P. Schnabl, K. Sobień, Kr. Stoykova, Pl. Tchoumatchenco**
S7-O1: Integrated bio-, magnetostratigraphy and magnetic susceptibility of Upper Berriasian hemipelagic carbonates in the West Balkan Mts

CONFERENCE ROOM 4

09:00 - 10:40 SESSION 3: OIL AND GAS ADVANCED GEOPHYSICAL PROSPECTING – ONSHORE AND OFFSHORE

Chairman Assist. Prof. PhD Ch. Tzankov

- 09:00 - 09:20 At. Vasilev**
S3-O1: Geothermal study of gas hydrates from Danube paleodelta – BEEZ of the Black Sea
- 09:20 - 09:40 M. Toshev**
S3-O2: Land seismic data processing with preservation of the true amplitude ratios
- 09:40 - 10:00 M. Grigorova**
S3-O3: Influence of static corrections in seismic processing for Prestack Kirchhoff depth migration (PSDM)
- 10:00 - 10:20 M. Yankova, St. Dimovski**
S3-O4: Application of borehole log analysis for evaluating the reservoir properties

of thick terrigenous rocks
10:20 - 10:40 T. Pindzhurova
S3-O5: Seismic Inversion

10:40 - 11:00 Coffee break

11:00 - 12:20 SESSION 5: NEAR SURFACE AND ENVIRONMENTAL GEOPHYSICS (INCLUDING GEOLOGICAL HAZARDS)

Chairman Prof. PhD B. Rangelov

11:00 - 11:20 Iv. Parushev, B. Rangelov, T. Iliev, Ed. Spasov

S5-O1: Kinematic modeling of idealized system for early registration and warning in case of an earthquake

11:20 - 11:40 R. Kancheva, G. Georgiev, D. Borisova

S5-O2: Spectral reflectance response of crop canopy to abiotic stress

11:40 - 12:00 D. Borisova, R. Kancheva, Hr. Nikolov

S5-O3: Soil monitoring using spectral data

12:00 - 12:20 G. Valev, G. Rainov, K. Vassileva

S5-O4: Geodetic measurements and study of the Mirovo salt deposit

12:20 - 14:00 Lunch break

14:00 - 15:20 SESSION 6: GEOPHYSICS FOR GEOLOGICAL AND CULTURAL HERITAGE

Chairman Prof. DSc St. Dimovski

14:00 - 14:20 K. Velkovsky, L. Trendafilova

S6-O1: Application of geophysical prospecting methods for the purposes of underwater archaeological research in the Black Sea

14:20 - 14:40 Ch. Tzankov, R. Radichev, M. Yankova, At. Kisiov, N. Kirilov

S6-O2: Geophysical surveys for archeology investigations in archaeological reserve "Sborianovo"

14:40 - 15:00 P. Stavrev, Ch. Tzankov

S6-O3: A remarkable discovery of the applied geophysics in the archaeology – The Caryatids Royal Tomb near Sveshtari

15:00 - 15:20 K. Velkovsky, Zdr. Dimitrov, Ch. Tzankov

S6-O4: Geophysical survey of a late antique object along the Struma Motorway, LOT 2 between km 343+740 and km 343+840, near the village of Mursalevo

15:20 - 16:00 Coffee break

Friday, 22 May 2015

FIELD TRIP TO THE RILA MONASTERY AND THE KRESNA GORGE
(optional on request)

Wednesday, 20 May 2015

(17:00 – 18:30)

**POSTER SESSION
(reports list)**

SESSION 1: GEOPHYSICS OF THE EARTH'S INTERIOR (INCLUDING REGIONAL GEOPHYSICS, GEOLOGY AND GEODYNAMICS)

G. Georgieva

S1-P1: Receiver functions obtained for seismic station Vitosha (VTS)

D. Buhcheva, B. Lund, K. Berglund, R. Bödvarsson, R. Munier

S1-P2: Burträsk – the most seismically active fault in Sweden

M. Metodiev, P. Trifonova

S1-P3: Geomagnetic activity for the last solar cycle recorded in PAG observatory

R. Raykova

S1-P4: RETREAT seismic data analysis: from records to 3D velocity model

M. Orlyuk, A. Marchenko, B. Srebrov

S1-P5: Calculate technology of the Earth's magnetic field power and angular components

SESSION 2: CLASSICAL AND MODERN TECHNOLOGIES IN GEOPHYSICAL PRACTICE

V. Starostenko, O. Legostaeva, I. Makarenko, A. Savchenko, P. Kuprienko

S3-P1: Automated software system for interpretation of the potential fields (GMT-Auto)

SESSION 3: OIL AND GAS ADVANCED GEOPHYSICAL PROSPECTING – ONSHORE AND OFFSHORE

V. Dobrinova

S3-P1: Calculation of static corrections for land seismic in Central Northern Bulgaria using refracted waves

S. Ouadfeul, L. Aliouane

S3-P2: Total Organic Carbon Prediction in shale gas reservoirs using the Radial Basis Function neural network

SESSION 4: GEOPHYSICS FOR MINERAL DEPOSITS

P. Stavrev, Al. Tsvetkov

S4-P1: Gravity and magnetic explorations of porphyry-copper and gold-bearing ore mineralizations in mountains areas

SESSION 5: NEAR SURFACE AND ENVIRONMENTAL GEOPHYSICS (INCLUDING GEOLOGICAL

HAZARDS)

R. Kancheva, G. Georgiev, D. Borisova

S5-P1: Optical remote sensing of salt-affected soils

P. Petrov, D. Jordanova

S5-P2: Effects of grass fires on soil magnetic properties – a pilot study

St. Dimovski, N. Stoyanov, M. Yankova, At. Kisyov

S5-P3: Application of electrical resistivity for mapping of landslide surfaces

SESSION 6: GEOPHYSICS FOR GEOLOGICAL AND CULTURAL HERITAGE

Ant. Mokreva, Em. Tcherkezova, N. Jordanova

S6-P1: Preliminary results from integrated magnetic and geomorphologic investigations of the archaeological site “Ada tepe” (Eastern Rhodopes)

D. Lesigyarski, M. Kostadinova-Avramova, M. Kovacheva

S6-P2: Archaeomagnetic method as a tool for solving of various archaeological problems

SESSION 7: GEOLOGICAL MODELS ON GEOPHYSICAL DATA

As. Ilieva

S7-P1: Application of geophysical results at geological modeling in Petrel software platform

At. Kisyov

S7-P2: Possibilities for the application of computer neural networks in the statistical analysis of petrophysical data