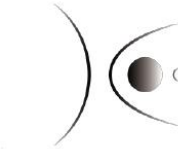


**PROGRAM**  
**OF THE 17TH INTERNATIONAL WORKSHOP**  
**“SOLAR INFLUENCES ON THE MAGNETOSPHERE, IONOSPHERE, AND ATMOSPHERE”**  
**PRIMORSKO, BULGARIA, 02-06 JUNE 2025**



## June 02

### 09:30-09:45 Opening of the Workshop

09:45-10:05 *Rozelot, J.P.*, The leptocline: a solar subsurface layer full of potential

10:05-10:25 *Obridko, V.N.* Mean Field Dynamo and Solar Activity Forecasting

10:25-10:45 *Sokoloff D.D.* Resonances in Parker Migratory Dynamo

10:40-11:00 Coffee break

11:00-11:20 *Katsova, M.* Searching planetary influence effects in solar activity cycles

11:20-11:40 *Tsvetkov Ts.* Planning for Totality: Scientific Objectives of the 2026 Solar Eclipse Expedition in Spain

11:40-12:00 *Balikhin M.* Dispersive shocks and the concept of Whistler Critical Mach number

12:00-12:20 *Mirkamalov M.*, Drivers of Hard X-Ray Footpoint Asymmetry in Solar Flares

12:20-12:40 *Podgorny A.* Solar flare location on the extended arc of magnetic lines with increased current density, obtained by analyzing the results of MHD simulation

### 17:00-18:30 Poster session 1

Calisir M., Reconstruction of Kandilli Observatory Flare Index Data Using the Simplex Projection Method

Dechev M., New Facilities for Solar Observations in Bulgaria

Dechev M., First Bulgarian Antarctic Astrophysical Observatory

Hiremath, Association between equatorial coronal hole physical parameters with the sunspot activity

Kesri K., Dependence of Spicule Properties on the Magnetic Field—Results from magnetohydrodynamics simulations

Koleva R., Catalog of Solar Energetic Particles Events Registered by Liulin-MO Dosimeter in Martian Orbit during the Current Solar Cycle

Sahin S., The Role of Sunspot Complexity and Area in Flare-Driven Coronal Rain

Shevchuk M., Usage of the solar energy for the solar radio observations with mobile antenna array

Simic Z., Research Unit for Solar Activity Monitoring, Climate Change and Light Pollution

Tirnakci M., Hemispheric Asymmetry of Sunspot Groups During Solar Cycles 23–25

Karapetyan T., The Forbush decrease observed by the SEVAN particle detector network in the 25th solar activity cycle

## June 03

09:30-09:50 ***Dzhalilov N.*** MHD instabilities in shear flows of anisotropic solar wind plasma

09:50-10:10 ***Motyk I.***, Application of microwave average time profile to analysis of flares with long-duration energy release

10:10-10:30 ***Sahin S.***, Do flares impact neighbouring quiescent coronal rain?

10:30-10:50 ***Kashapova L.***, About possible jet emission effects on the shape of the flare microwave spectrum

### 10:50-11:10 Coffee break

11:10-11:30 ***Malandraki O.*** Using Type III radio bursts as evidence of particle escape from the Sun for enhancing solar proton forecasting capabilities: HESPERIA REleASE+ & STEREO REleASE+

11:30-11:50 ***Krasnoselskikh V.*** III Solar Radio Bursts: recent progress due to PSP and Solar Orbiter measurements

11:50-12:10 ***Pulatov D.***, Type II burst band split and their space weather implication

12:10-12:30 ***Gopalswamy N.***, Solar Cycle Variation of Sustained gamma-ray emission from the Sun

### 18:30 Social event

## June 04

09:30-09:50 ***Semkova J.***, Radiation conditions in Mars vicinity during different phases of the solar cycle according measurements by Liulin-MO dosimeter aboard the Trace Gas Orbiter

09:50-10:10 **Benghin V.**, Modulation of the particle flux detected by the Liulin-MO instrument during solar proton events caused by the orbital motion of the ExoMars TGO spacecraft around Mars

10:10-10:30 **Chilingarian A.**, The Atmosphere and Radiation: Screening or Generating?

10:30-10:50 **Dachev Ts.**, Space radiation measurements during a round trip from Varna, Bulgaria to Bulgarian Antarctic Base on Livingston Island

#### **10:50-11:10 Coffee break**

11:10-11:30 **Çalışır, M.A.**, Variations of Umbral Magnetic Field Intensity with Umbral Area, Brightness, and Sunspot Number

11:30-11:50 **Grigorenko E.** High-speed electron bulk flows and their role in the Plasma Sheet energy conversion in micro-scales

11:50-12:10 **Malandraki O.** Energetic Particle Acceleration and Transport: Interplanetary Coronal Mass Ejections and shocks

12:10-12:30 **Gerçeker K.** Daily and Monthly Predictions of the Maximum CME Speed Index for Solar Cycle 25

#### **17:00-18:30 Poster session 2**

Bojilova R., Global Ionospheric Response to Geomagnetic Storm in May 2024

Bojilova R., Correlation analysis between geomagnetic activity and ionospheric peak electron density height of F2 layer for ionospheric station Rome - Italy

Bouzekova-Penkova A., Electromagnetic fields near the magnetopause based on satellite data

Demetrescu C., The geomagnetic field as both a tool and a hazard in Romania

Kirov B., Space weather influences on satellite anomalies

Koleva K., Two interacting CMEs and related eruptions

Komendant V., Cross-spectral analysis of the B-star drag term and solar and geomagnetic activity indices

Raykova L., Analysis of the midlatitude positive bays registered at the Panagjurishte station during 2007-2024

Sargsyan B., Comparison of GLE event of 11 May 2024 and Magnetospheric effect 5 November 2023

Tonev P., Examination of Peculiar Rocket-borne Electric Field Profile during Solar Proton Event October 19 1989

Shkevov R., Accuracy analysis of the analytical approximation model for electrons resonant acceleration in space plasma

Shkevov R., Inhomogeneous plasma enlightenment on the base of exactly solvable model

Zhelev G., Study of the relationship between solar radiation and the level of geological hazard

## June 05

09:30-09:50 **Shlyk N.**, Empirical models for assessing CMEs potential geoeffectiveness

09:50-10:10 **Ganushkina, N. Yu.** 1. 1-100 keV electrons in the inner Earth's magnetosphere during extreme magnetic storms

10:10-10:30 **Gromova L.I.**, Intense magnetic storms in the maximum phase of the 25th solar activity cycle and their solar sources

10:30-10:50 **Despirak I.V.** 1, Slow solar wind and “polar” substorms

### 10:50-11:10 Coffee break

11:10-11:30 **Kilcik A.** Nonlinear and Causal Dynamics between Solar and Geomagnetic Activity Indices

11:30-11:50 **Guineva V.**, The geomagnetic mid-latitude effects of the supersubstorms during May 10-12, 2024 superstorm

11:50-12:10 **Setsko P.** et al. Geomagnetically induced currents during May 2024 superstorm

12:10-12:30 **Adibekyan M.**, The Analysis of Observations of Ionospheric and Geomagnetic Time Series for Detection of Precursors of Earthquakes

### 17:00-18:30 Poster session 3

Bachev R., Applications of Chaos Theory to Astrophysical Time Series: Analysis of Blazar Light Curves from TESS

Boneva D., Solar-type activities and brightness variations in three binary star systems

Bouzekova-Penkova A., Electromagnetic radiation in urban environments

Koucka Knizova P., Sporadic E variability during low geomagnetic activity

Krastev K., Solar proton events recorded by the Lyulin instrument - composition analysis using numerical modeling

Miteva A., Solar influences on aluminium alloys: a review

Mosna Z., Analysis of drift measurement in the ionosphere

Mustafa F., Effects of geomagnetic storms on the mid-latitude D-region ionosphere

Potuznikova K., Ionospheric response to gravity waves induced by tropospheric convection in mid-latitudes

Sakan N., Further step in development of hydrogen plasma modeling, modified Yukawa screening in dense hydrogen plasma

Yankova K., Coronary activity at the accretion disk

## June 06

09:30-09:50 **Veretenenko S.**, Hale magnetic cycle on the Sun: manifestations in geophysical characteristics and possible influence of the Earth's climate

09:50-10:10 **Potužníková K.**, Observation of GW in connection with severe tropospheric events

10:10-10:30 **Dobrica V.**, The solar activity forcing on hydroclimate in the Southeastern Europe

10:30-10:50 **Werner R.**, Basic Statistical Properties of the 10-year Ozone Daily Time Series from Stara Zagora

**10:50-11:10 Coffee break**

11:10-12:30 **BBC Network**

**12:30-12:45 Closing of the Workshop**