

## Monday June 5

09:15 – 09:30 **OPENING**

### MORNING SESSION

09:30 – 09:50 [Yermolaev Yu., Lodkina I., Khokhlachev A. Will solar cycle 25 be similar to cycle 24 according to solar wind observations?](#)

09:50 – 10:10 [Tsvetkov Ts., Petrov N., Zinkova Y. Eclipsed Sun over Australia on 20 April 2023](#)

10:10 – 10:30 [Katsova M., Obridko V., Sokoloff D. Stellar cycles and exoplanets: a search for connections](#)

10:30 – 10:50 Madjarska M.S., Mackay D.H., Galsgaard K., Wiegelmann T. Coronal eruptive activity in the quiet Sun

10:50 – 11:10 **COFFEE BREAK**

11:10 – 11:30 Obridko V.N., Shibalova A.S., Sokoloff D.D. Extended cycle and asymmetry of large-scale solar magnetic field

11:30 – 11:50 [Ozguc A., Kilcik A. Temporal Offsets Between Solar Flare Index and Cosmic, Geomagnetic, and Interplanetary Indicators During Solar Cycle 24](#)

11:50 – 12:10 [Kolotkov D. Non-adiabatic Coronal Seismology](#)

12:10 – 12:30 Gopalswamy N., Akiyama S., Yashiro S., Makela P., Xie H. A Catalog of Intense Geomagnetic Storms and the Associated Solar Sources

### SPECIAL BLU MEETING

15:30 – 16:00 O.M. Ulyanov. Ukrainian Radio Telescopes – Today and in the Future.

16:00 – 16:30 M.Orlyuk, Yu.Sumaruk, O. Romenets, O.Ruzhynskiy. Observations in Geomagnetic Observatories and Repeat Stations of Ukraine: Devices and Equipment.

16:30 – 17:00 Ryabov M.I. Sukharev A.L., Sobitnyak L.I., Komendant V.G., Vladislavs Bezrukovs, Jānis Šteinbergs, Karina Skirmante, Orlyuk M.I., Romenets A.O. Application of power space radio sources observations and magnetometer measurements to study the global and regional response of extreme states of the Sun-Interplanetary Environment-Magnetosphere-Ionosphere system.

17:00 – 17:30 M.I.Orlyuk, A.A. Romenets. Temporal changes of the Earth's magnetic field and solar activity: ecological aspect

## Tuesday June 6

### MORNING SESSION

09:30 – 09:50 Sokoloff D.D., Serenkova A.Yu., Yushkov E.V. Resonances in Stellar Dynamios

09:50 – 10:10 [Bezrukovs D., Bezrukovs V. Microwave observations of the Sun in VIRAC](#)

10:10 – 10:30 Skokić I., Benz A.O., Brajša R., Sudar D., Matković F., Bárta M. Flare properties at millimeter wavelengths

10:30 – 10:50 [Kilcik A., Calisir M. Solar Cycle Dependencies of Sunspot Umbral Dot Parameters](#)

10:50 – 11:10 **COFFEE BREAK**

11:10 – 11:30 [Semkova J., Koleva R., Benghin V., Krastev K., Matviichuk Y., Tomov B., Bankov N., Maltchev S., Dachev T., Mitrofanov I., Malakhov A., Kozyrev A., Golovin D., Mokrousov M., Litvak M., Shurshakov V., Drobyshev S., Gopalswamy N., Guo J., Zhang J., Liu W. Update of the science results from the radiation investigations in Mars orbit aboard ExoMars TGO in 2018-2023](#)

11:30 – 11:50 [Koleva R., Semkova J., Benghin V., Krastev K., Matviichuk Y., Tomov B., Bankov N., Maltchev S., Dachev T., Drobyshev S., Gopalswamy N., Mitrofanov I., Malakhov A., Golovin D., Litvak M. Where did the solar energetic protons observed in Mars orbit come from?](#)

11:50 – 12:10 Khokhlachev A. Yermolaev Y., Lodkina I., Riazantseva M., Rakhmanova L. Helium abundance behavior inside ICME at large spatial scales

12:10 – 12:30 Elias A.G., Medina F.D., Duran T., Zossi B.S., de Haro Barbas B.F. Six EUV solar radiation proxies: a comparative analysis

## **SPECIAL BLU MEETING**

15:30 – 15:50 Panishko S.K., Lytvynenko O.A. Short period variations of the parameters of ionospheric scintillations on the long time observations of the cosmic radio sources at the decametric radio waves.

15:50 – 16:10 Sobitnyak L.I. Ryabov M.I. Orlyuk M.I., Sumaruk Y. New version Catalog magnetic storms in Odessa Magnetic Anomaly.

16:10 – 16:30 Sukharev A.L. Galanin V.V. M.I.Ryabov. Observation scintillation radio sources in decameter range on the radio telescope “URAN-4”.

16:30 – 16:50 **COFFEE BREAK**

16:50 – 18:30 – **POSTER SESSION 1**

Asenovski S., Georgieva K., Kirov B., Six Ascending Phases of Solar Activity in the Heliosphere

Calisir M.A., Ozmen O., Kilcik A. Prediction of the solar cycles 25 and 26 using the machine learning method (SARIMA)

Despirak I.V., Lubchich A.A., Kleimenova N.G., Space weather conditions and non-storm supersubstorms observations

Gerçeker, K., Kilcik, A., Quantifying the Causality between Solar Flares and Dst Index using rEDM's Convergent Cross Mapping: Solar Cycle 24

Kirov B., Georgieva K., Asenovski S. Relationship between sunspot number and geomagnetic activity during different solar cycles

Kobylinski Z., Wysokinski A., Prediction of Solar Activity and Geomagnetic Changes during 26th Solar Cycle from Earlier Cycles Data (9th - 25th) using Elman Recurrent Networks

Lubchich A.A., Despirak I.V., Werner R., Intense mid-latitude magnetic disturbances and solar wind conditions

Nenovski P., Shkevov R., Do global-scale MHD modes of the ionosphere exist and how?

Petrov N., Tsvetkov Ts., Tyutyundzhiev N., Semkov E., Mishev A., Shirov G., Zinkova Y., Mutafov A., Nichev H., Petrov M., Angelov H., Arsov T., Serafimov N., Georgiev G., Ground-based monitoring of cosmic particles (neutrons) and space weather

Shkevov R., Zolnikova N., Mikhailovskaya L., Analysis of possible locations of the relativistic sources of resonance particles in the inner heliosphere space

## **Wednesday June 7**

### **MORNING SESSION**

09:30 – 09:50 [Tirnakci M., Asenovski S., Kilcik A., Investigation of Solar Energetic Particles \(SEPs\) Associated with X-ray Solar Flares](#)

09:50 – 10:10 [Lastovicka J. The optimum solar activity proxy for long-term studies of foF2](#)

10:10 – 10:30 [Rabiu A.B., Ogunjo S.T., Fuwape I. A., Obafaye A.A. On the variability of the dynamical complexities of space environment with solar cycle](#)

10:30 – 10:50 [Despirak I.V., Kleimenova N.G., Malysheva L.M., Gromova L.I., Lubchich A.A., Roldugin A.V. Polar substorm disturbances on the archipelago Svalbard](#)

### **10:50 – 11:10 COFFEE BREAK**

11:10 – 11:30 Rakhmanova L., Riazantseva M., Khokhlachev A., Yermolaev Yu. Role of the varying solar wind in properties of the magnetosheath turbulence

11:30 – 11:50 [Dachev T., Tomov B., Matviichuk Y., Dimitrov P., Semkova J., Koleva R., Jordanova M., Bankov N., Mitev M. Krastev K., Malchev S., Reitz G., Header D.-P. Penetration of energetic electrons from outer radiation belt to lower L-Values and to inner radiation belt](#)

11:50 – 12:10 [Grigorenko E., Malykhin A., Leonenko M., Zelenyi L. Electron-scale current layers observed by MMS in the magnetotail plasma sheet](#)

12:10 – 12:30 Podgorny A.I., Podgorny I.M. Problems arising in studying the mechanism of a solar flare by the way of comparing the results of MHD simulations above the real active region with observations

### **SPECIAL BLU MEETING**

15:30 – 15:50 Komendant V.G, Koshkin N.I, Ryabov M.I, Sukharev A.L. Multiple correlation models of dependence of the drag of artificial satellites on the state of space weather in 23 - 24 cycles of solar activity.

15:50 – 16:10 L. Rakhlin, S. Timoshin , V. Tkachenko. Fluxgate magnetometer for studying Solar Influences on the Magnetosphere

16:10 – 16:30 Bezrukovs, D., Bezrukovs, V. Microwave observations of the Sun in VIRAC

16:30 – 16:50 **COFFEE BREAK**

16:50 – 18:30 **POSTER SESSION 2**

Bojilova R., Mukhtarov P., Median model for forecasting of ionospheric virtual height for Sofia city

Bojilova R., Mukhtarov P. Analysis of the response of the ionospheric storm over Europe during 26-28 February 2023

Dechev M., Kozarev K. LOFAR-BG - Current state

Kleimenova N.G., Despirak I.V., Malysheva L.M., Gromova L.I., Lubchich A.A., Gromov S.V., Harang discontinuity, “polar” substorms and subauroral positive magnetic bays

Krastev Kr., Semkova J., Koleva R., Benghin V., Drobijshv, S., Numerical simulation of the LIULIN-MO device

Koleva K., Gopalswamy N., Yashiro S., Dechev M., Non-radial motions of CMEs during Solar Cycle 24 and rising phase of Solar Cycle 25

Michnowski S., Kobylnski Z., Study of Ground Level Electric Field Response to Solar Eclipses

Roša D., Skokić I., Hržina D., Maričić D., Šterc F., Romštajn I., Possible Method for Determining Direction of Motion of Coronal Mass Ejections

Werner R., Guineva V., Despirak I., Lyubchich A., Bojilova R., Raykova L., Atanassov A., Valev D., Application of extreme value theory to describe the statistical distributions of the auroral electrojet IL index

**Thursday June 8**

**MORNING SESSION**

09:30 – 09:50 [Demetrescu C., Dobrica V., Stefan C. External current systems as a driver of oscillations in the geomagnetic field](#)

09:50 – 10:10 [Guineva V., Werner R., Atanassov A., Bojilova R., Raykova L., Valev D. Determination of the parameters of midlatitude positive bays caused by magnetospheric substorms](#)

10:10 – 10:30 [Setsko P.V., Despirak I.V., Sakharov Ya.A., Bilin V.A., Lubchich A.A., Selivanov V.N. Geomagnetically induced currents during different types of solar wind](#)

10:30 – 10:50 [Dobrica V., Demetrescu C., Stefan C. Geoelectric field over Romanian territory during the strongest geomagnetic storms of solar cycle 24](#)

10:50 – 11:10 **COFFEE BREAK**

11:10 – 11:30 [Cho K.-S., Park C.-G., Kim R.-S., Cho K.-S., Jeon J. Solar activity and climate change recorded in Korean chronicles during the last millennium](#)

11:30 – 11:50 [Tonev P., Asenovski S. Hypothetic Atmospheric Response to SEP Explaining Peculiar Electric Fields and Currents at High Latitudes](#)

11:50 – 12:10 [Potužníková K., Koucká Knížová P., Chum J., Podolská K., Kouba D., Mošna Z. Summer tropospheric mesoscale situations with impact on the ionospheric plasma](#)

12:10 – 12:30 [Koucká Knížová P., Potužníková K., Podolská K., Kouba D., Mošna Z., Chum J., Barta V., Szárnya C., Berényi, K.A., Buzás A., Bozsó I. Ionospheric effects of mesoscale cyclone Zyprian on the ionospheric variability over Europe](#)

## **AFTERNOON SESSION**

16:30 – 18:30 **GENERAL DISCUSSION**

### **Friday June 9**

09:30 – 09:50 Adibekyan M.V. Gulyan A.G., Sargsyan S.A., Arakelyan H.S. Investigation of the type of radio emissions from sources of radio emissions such as: seismo-ionospheric communications, Galactic background, "Swan-A" and "Cassiopeia-A" by vertical ionospheric sounding at a wavelength of 4.2 m.

09:50 – 10:10 [Werner R., Guineva V., Valev D., Petkov B., Bojilova R., Kirillov A. Long time trend in total ozone column by MRS2 overpass data for Sofia for 1979-2022 based on ordinary and weighted linear regression](#)

10:10 – 10:30 [Chapanov Ya. Common cycles of solar activity and Antarctic Oscillations](#)

10:30 – 10:50 Mironova I. Forcing energetic particles on the middle atmosphere during geomagnetic disturbances

10:50 – 11:10 **COFFEE BREAK**

11:10 – 11:30 Veretenenko S., Dmitriev P. Solar activity influences on extratropical cyclone trajectories in the North Atlantic

11:30 – 11:50 Georgieva K. Solar activity influences on the polar vortex

11:50 – 12:20 **Organizational questions**

12:20 – 12:30 **Closing of the Workshop**

## **SPECIAL BLU MEETING**

14:30 – 16:30 V.Bezrukovs (Latvia), M.Ryabov (Ukraine), S.Asenovski (Bulgaria) – MODERATORS:  
Discussion on future bilateral and trilateral joint projects