

Workshop Program – Final

Monday 6 June

Chair: Atila Ozguc

09:30 – 09:40 **Opening**

09:40 – 10:00 [*Obridko V.N., Katsova M.M., Sokoloff D.D., Shelting B.D., Livshits I.M. Clarifying Physical Properties of Magnetic Fields in Sunspots*](#)

10:00 – 10:20 [*Muraközy J. Variations of the Sunspot Groups Separation Distance and Tilt Angles During the Decay*](#)

10:20 – 10:40 *Sokoloff D., Malova Y., Maiewsky E., Yushkov E., Popov V. Stellar Dynamo and Structure of Current Sheets*

10:40 – 11:00 [*Katsova M., Nizamov B., Shlyapnikov A. Activity of Solar Twins*](#)

11:00 – 11:20 **Coffee break**

11:20 – 11:40 [*Zhukova A., Khlystova A., Abramenko V., Sokoloff D. Temporal and latitudinal distribution of anti-Hale active regions in the synthetic solar cycle*](#)

11:40 – 12:00 [*Koleva K., Dechev M., Duchlev P., Chandra R. Solar Asymmetric Filament Eruption Observed by the Solar Dynamic Observatory and Related Activity*](#)

12:00 – 12:40 [*Bezrukovs V., Klokovs A. Overview about VIRAC and Ongoing Activities*](#)

12:40 – 14:00 **Lunch break**

15:00 – 16:30 **Discussions**

17:30 – 19:00 **Poster session**

Calisir M.A., Kilcik A. Relationship between Solar Energetic Particles and Solar Flares during the 24th Solar Cycle

[*Dechev M., Koleva K., Duchlev P., Simic Z., Chandra R. Different Prominence Eruptions and Associated Coronal Mass Ejections*](#)

Demiroz M.I., Kilcik A. Coronal Mass Ejection Effect on Interplanetary Medium: A Case Study

Kobyliński Z., Wysokiński A. Forecast of the Solar and Geomagnetic Activity During 25 - 26 Cycles by Means of Elman ANN

Kostov M. Structure of the solar corona during the solar cycle rising phase

Tuesday 7 June

Chair: Jordanka Semkova

09:40 – 10:00 [Kolotkov D.Y. Hidden Timescales in Solar and Stellar Flares](#)

10:00 – 10:20 [Ozquc A., Kilcik A., Yurchyshyn V. Temporal and Periodic Variations of the Solar Flare Index during Last Four Solar Cycles and their Association with Selected Interplanetary Parameters](#)

10:20 – 10:40 [Yermolaev Y.I., Lodkina I.G., Khokhlachev A.A, Yermolaev M.Yu., Riazantseva M.O., Rakhmanova L.S., Borodkova N.L., Sapunova O.V., Moskaleva A.V. Possible Causes and Consequences of the Weakening of the Solar Wind in the Current Epoch of the Grand Solar Minimum](#)

10:40 – 11:00 [Podgorny A.I., Podgorny I.M., Borisenko A.V. Singularities of the Magnetic Field Configuration During Flares M1.4 on May 27, 2003 at 02:43 and M 1.9 on May 26, 2003 at 05:34 According to the Results of MHD Simulation Above the Active Region AR 10365](#)

11:00 – 11:20 **Coffee break**

11:20 – 11:40 [Tsvetkov Ts., Nakeva Y., Petrov N. Database of Solar Cycle 24 Coronal Mass Ejections and Flares Related to Active Regions](#)

11:40 – 12:00 [Asenovski S., Georgieva K. Kirov B. Open Access Database for Different Types of Solar Wind](#)

12:00 – 12:20 *Dineva E., Denker C., Verma M., Steffen M., Kontogiannis I.* Classification Based on Machine Learning of Fe i 7090A Spectra Derived from CO5BOLD Simulations

12:20 – 12:40 [Kirov B., Georgieva K., Asenovski S. A comparison between the solar activity in the 11-year sunspot cycles during the last two centennial solar activity minima. A comparison of the geomagnetic activity during the same periods](#)

12:40 – 14:00 **Lunch break**

15:00 – 16:30 **Discussions**

17:30 – 19:00 **Poster session**

[Adibekyan M. Analyse of Ionospheric and Geomagnetic Pre-Earthquake Anomalies](#)

[Despirak I.V., Werner R., Lubchich A.A., Kleimenova N.G., Guineva V. Relationship Between the Intense Mid-Latitude Geomagnetic Effect at the Panagurishte Station and Solar Wind Conditions](#)

Feygin F. Z., Khabazin Yu. G., Kleimenova N. G., Malysheva L. M. Ground-based Pc1 geomagnetic pulsation polarization as a proxy of the plasmopause location

Gospodinov D. Colours of the eclipsed Moon - effects of stratospheric transparency and solar activity

[*Guineva V., Werner R., Bojilova R., Atanassov A., Raykova L., Valev D.* Maps of the Spatial Distribution of the Variations in the X and Y Components of the Magnetic Field at European Midlatitudes During Substorms: A Case Study](#)

[*Jivov I., Bojilova R.* Comparison of Ionospheric and Geomagnetic Anomalies over Bulgaria during St. Patrick's Geomagnetic Storm](#)

Koucká Knížová P., Podolská K., Mošna Z., Kouba D., Potužníková K. Ionospheric Variability Observed During 4 November 2021 Geomagnetic Storm

Wednesday 8 June

Chair: Vladimir Obridko

09:40 – 10:00 *Malandraki O.E., Rodríguez-Pacheco J., McComas D.J., Wimmer-Schweingruber R.F., Schwadron N., Ho G.C., Desai M., Mitchel D.G., Kollhoff A., Janitzek N., Pacheco D., Gomez-Herrero R., Posner A., Kouloumvakos A., Dresing N., Heber B., Cohen C.M.S., Kuehl P., Leske R., Wiedenbeck M. and the Solar Orbiter/EPD and PSP/ISOIS teams.* Pioneering Energetic Particle Observations Near the Sun by Solar Orbiter and Parker Solar Probe

10:00 – 10:20 [*Semkova J., Koleva R., Benqhin V., Krastev K., Matviichuk Y., Tomov B., Bankov N., Maltchev S., Dachev T., Mitrofanov I., Malakhov A., Kozyrev A., Golovin D., Mokrousov M., Sanin A., Litvak M., Nikiforov S., Lisov D., Anikin A., Shurshakov V., Drobyshev S.* Observation of Solar Energetic Particle Events Onboard ExoMars TGO in July 2021-March 2022](#)

10:20 – 10:40 [*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.* Overview of the Space Radiation Extreme Events Observed with Liulin Type Instruments](#)

10:40 – 11:00 [*Kilcik A., Tirnakci M.* Comparison of the Critical Frequencies of the Ionospheric F1 and F2 Layers with the X-Ray Solar Flare Numbers Observed during the Solar Cycle 24](#)

11:00 – 11:20 **Coffee break**

11:20 – 11:40 [*Demetrescu C., Dobrica V., Stefan C.* Toward the Space Climate Characterization of the Heliosphere – Magnetosphere Environment for the Last 400 Years](#)

11:40 – 12:00 *Gopalswamy N., Yashiro S., Xie H., Akiyama S., Mäkelä P.* Effect of Solar Wind Density in the Time Structure of Geomagnetic Storms

12:00 – 14:00 **Lunch break**

15:00 – 16:30 **Discussions**

17:30 – 19:00 **Poster session**

[Bojilova R., Mukhtarov P. The Methodology for Calculating the Values of Monthly Median Critical Frequencies of E-Region](#)

Krastev K., Semkova j., Koleva R., Benghin V., Drobjshhev S. Solar Manifestations in the Martian Orbit Observed from the Liulin Instrument

[Shirov G., Petrov N., Tsvetkov Ts. Digitization of Meteorological Data Archives Collected in Bulgaria](#)

Tonev P. Peculiar Atmospheric Electric Field Response at High Latitude to Three Major SEP Events in 2001 and Its Possible Interpretation

[Veretenenko S., Dmitriev P. Long-Term Variability of North Atlantic Cyclone Tracks: Possible Influence of Solar Activity and Galactic Cosmic Rays](#)

Wysockinski A., Kobylinski Z. Wavelet Analysis and Recurrence Plots of Oxygen Isotope and Paleotemperature Records from NGRIP Ice Core

Thursday 9 June

Chair: Crisan Demetrescu

09:40 – 10:00 [Kleimenova N.G., Despirak I.V., Malysheva L.M., Gromova L.I., Lubchich A.A., Guineva V., Werner R. Morning Polar Substorms and Their Possible Mid-Latitude Effects](#)

10:00 – 10:20 [Werner R., Guineva V., Atanassov A., Bojilova R., Raykova L., Valev D., Despirak I.V., Lubchich A.A., Kleimenova N.G., Setsko P.V. Mid-Latitude Response to Auroral Substorms in Magnetic Field Variations at the Bulgarian Station Panagjurishte from 2007 Up to 2020](#)

10:20 – 10:40 [Despirak I.V., Lubchich A.A., Kleimenova N.G., Setsko P.V., Werner R. Supersubstorm on 20 December 2015: Spatial Geomagnetic Effects](#)

10:40 – 11:00 *Gromova L.I., Kleimenova N.G., Despirak I.V., Lubchich A.A., Gromov S.V., Malysheva L.M.* Polar Geomagnetic Disturbances and Auroral Substorms During the Magnetic Storm on 20 April 2020

11:00 – 11:20 **Coffee break**

11:20 – 11:40 [Stefan C., V. Dobrica V., Demetrescu C. Assessing the Possible Sources of the Geomagnetic Storms By Means of Empirical Orthogonal Function Analysis](#)

11:40 – 12:00 *Setsko P.V., Mingalev O.V., Artemyev A.V., Melnik M.N.* Estimation of the current sheet parameters in near-Jupiter's magnetotail using simulation

12:00 – 12:20 [Kirov B., Georgieva K., Asenovski S. Space weather and its effects on spacecraft charging](#)

12:00 – 14:00 **Lunch break**

15:00 – 16:30 **Discussions**

Friday 10 June

Chair: Petra Koucka Knizova

09:40 – 10:00 [*Dobrica V., Demetrescu C., Isac A., Stefan C. Assessment of the Space Weather Hazard over Romanian Territory*](#)

10:00 – 10:20 *Setsko P.V., Despirak I.V., Sakharov Ya.A., Bilin V.A., Selivanov V.N.* Appearance of GICs in Case of Two SuperSubStorms on September 7 and 8, 2017

10:20 – 10:40 [*Kozubek M., Küchelbacher L., Chum J., Lastovicka J., Podolska K., Sindelarova T., Trinkl F., Wüst S., Bittner M. Preliminary Results: Lidar Measurements to Identify Streamers and Analyze Atmospheric Waves LISA \(Aeolus+Innovation\)*](#)

10:40 – 11:00 [*Chapanov Ya. Solar Influence on Ozone Variations over ENSO Regions*](#)

11:00 – 11:20 *Kirov B., Georgieva K.* Solar Magnetic Field and Earth Rotation

11:20 – 11:40 *Georgieva K., Kirov B.* Space Weather Effects on the Atmosphere

11:40 – 12:00 **Closing of the workshop**