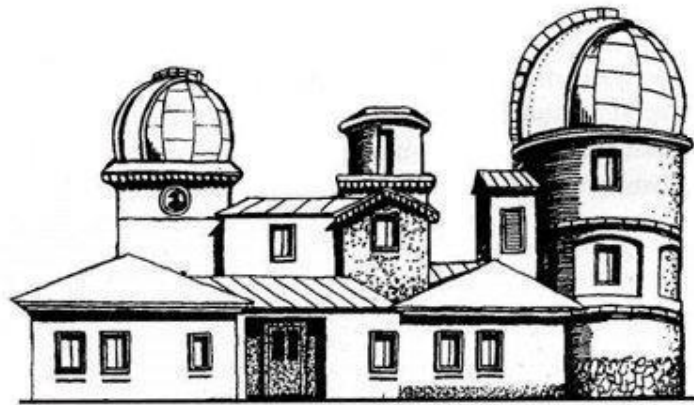


26th SOLAR PHYSICS MEETING

Piešťany, 6 – 10 June 2022

Slovak Central Observatory Hurbanovo



Solar Section

**Slovak
Astronomical
Society**
at Slovak Academy of Sciences

Solar Section



Building Partnership  www.skhu.eu



PROGRAMME

6 June 2022, Monday

16.00 - 20.00 - Registration

18.45 - Dinner

7 June 2022, Tuesday

9.00 – Opening Ceremony

Chairperson: J. Laštovička

50 years of Solar Physics Meetings (review talk)

I. Dorotovič

Horizontal motions in sunspot penumbra

M. Sobotka

The height distribution of the physical properties above a sunspot

M. Benko, P. Gömöry, C. Kuckein, H. Balthasar, S. J. González Manrique

10.40 – 11.00: Coffee Break

High resolution observations of the solar photosphere – Modern era with large telescopes 2005-2022 (review talk)

A. Kučera

The future spectropolarimeter of the Geophysical and Astronomical Observatory of the University of Coimbra

R. Gafeira, I. Dorotovič

12.30 – Lunch



15.00

Chairperson: E. Džifčáková

The stability of sunspots related to the magnetic field properties (review talk)

J. Jurčák

The Lomnický Štít Observatory: CMOS detectors for solar observations

J. Rybák

History of observations of the solar chromosphere and the corona in Hurbanovo

L. Pastorek

16.50 – 17.10: Coffee Break

Beat periods of the first two principal components of the magnetic field on the Sun - the poloidal and the toroidal - and their similarity to the CO₂ concentration field on Earth

P. Kalenda

On rotation of the corona and the solar activity

I. Dorotovič, M. Rybanský

18.00 – 18.20: * Presentation of posters

Testing the set of the datalogger LB-480 connected to the older Bobrov type magnetometer PSM-8711

E. Koči, F. Valach, M. Váczyová

Cosmic rays and geomagnetic storms in connection with solar activity

I. Parnahaj

On the cutoff frequency of Alfvén waves in the stratified solar atmosphere

P. Jelínek, Y. Tsap, V. Smirnova

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18.45 - Dinner

8 June 2022, Wednesday

9.00

Chairperson: A. Kučera

Are stellar flares similar to their solar analogs? (review talk)

P. Heinzel



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Study of the Slowly Positively Drifting Bursts (SPDBs) observed in frequency range 0.8 – 2 GHz and their connection with solar flares

A. Zemanová, M. Karlický, J. Kašparová, J. Dudík

Effect of the photoionization and level resolved ionization on the Carbon ionization equilibrium for kappa-distributions

E. Dzifčáková, R. Dufresne, G. Del Zanna

10.40 – 10.55: Coffee Break

What is the temperature of solar prominences? First independent determination using ALMA

M. Bárta, P. Heinzel, A. Berlicki

Kink oscillations of prominence thread excited by vortex shedding

P. Jelínek, S. Belov, M. Karlický

Doppler-velocity drift detected in a solar prominence

M. Zapiór

12.20 – Lunch

13.15 – Departure from the Hotel MAGNÓLIA

14.30 – Visit to the Castle of Beckov

16.00 – free time around the castle

17.30 – Departure to the Hotel MAGNÓLIA

18.45 - Dinner

9 June 2022, Thursday

9.00

Chairperson: F. Valach

Solar eclipses during the 2nd millennium (review talk)

E. Marková

Temperature decrease due to the total solar eclipse in the USA (Aug. 21, 2017)

I. Dorotovič, Z. Mitre, K. Péntek



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Solar light and Venus-transits - an update of the 250-year-old solar parallax of Maximilian Hell

Z. Mitre, K. Péntek

10.40 – 11.00: Coffee Break

Slovak National Space Safety Program (S2P) study - key points and roadmap

(review talk)

Š. Mackovjak

Segmentation of solar corona structures by deep learning

P. Butka, Š. Mackovjak, V. Maslej Krešňáková

Lomnický Stit Observatory – recent information

P. Gömöry and the Lomnický Stit Observatory team

12.30 – Lunch

15.00

Chairperson: J. Jurčák

Monitoring of Earth by Satellites *(review talk)*

J. Feranec

(Non)stability of relationships between ionospheric parameter foF2 and solar activity indices

J. Laštovička

On the relations between lightning, solar wind, solar activity and cosmic rays

J. Chum, G. Diendorfer, R. Langer, D. Saxonbergova, I. Strhársky

16.40 – 17.00: Coffee Break

Magnetospheric magnetic field model applied to strong geomagnetic storms

M. Revallo, F. Valach, P. Hejda

New York Railroad Storm of 1921 recorded on magnetograms at Stará Ďala Observatory

E. Koči, F. Valach

Discussion on future scope of Solar Physics Meetings

19.00 – Conference Dinner



10 June 2022, Friday

9.00

Chairperson: J. Rybák

Geomagnetic observations in the mid-19th century and the historical observatory Clementinum in Prague (review talk)

E. Valach, P. Hejda, M. Revallo

Towards explanation of airglow variation by ML techniques

Š. Mackovjak, P. Butka, V. Maslej Krešňáková, M. Varga, A. Kunderát, S. Amrich

10.15 – 10.35: Coffee Break

Ladislav Schmied Prize

V. Feik

11.00 – Closing Discussion

11.30 – Lunch

POSTERS

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