

The Second International Symposium on Space Climate

*Long-term Changes in the Sun
and their Effects
in the Heliosphere and Planet Earth*

Sinaia, Romania, 13–16 September, 2006

Scientific Program

Tuesday 12 September

17:00–20:00 – Participants Registration

20:00 – Welcome Cocktail at *Sinaia Hotel*

Wednesday, 13 September

8:00–8:30 – Participants Registration

8:30–9:00 – Opening Session

Topic I: Sun and Solar Activity

Session 1

Chair: K. Mursula

9:00–9:30 – D. Nandi: Space Climate and the Solar-Stellar Connection. What Can We Learn from Other Stars (invited)

9:30–10:00 – J. M. Vaquero: What Do We Know of the Long-Term Change in the Sun from Sunspots (invited)

10:00–10:30 – F. Clette: From the Wolf Number to the International Sunspot Index. 25 Years of SIDC (invited)

10:30–10:45 – E.-H. Lee: Features of Great Minima during the Last 1000 Years

10:45–11:15 – Coffee Break

Session 2

Chair: E. Cliver

11:15–11:45 – P. Charbonneau: The Origin of Solar Cycle Fluctuations (invited)

11:45–12:15 – S. Turck-Chieze: The Origin of Solar Cycle Activities (invited)

12:15–12:45 – R. Howe: What Can We Learn from Helioseismology about Long term Solar Evolution (invited)

12:45–13:15 – V. Obridko: Cycle Variations of the Large Scale Solar Magnetic Field (invited)

13:15–13:30 – D. K. Callebaut: On the “monopolar” character of the Sun in between polar reversals and in Maunder Minimum

13:30–14:30 – Lunch

Session 3

Chair: J.-P. Rozelot

14:30–15:00 – A. Ferriz-Mas: The Deep Roots of Solar Luminosity Variations (invited)

15:00–15:30 – W. Schmutz: Long-Term Variations of the Solar Irradiance (invited)

15:30–16:00 – S. Solanki: Modelling the Variability of Solar Irradiance (invited)

16:00–16:15 – L. Balmaceda: Reconstruction of total solar irradiance variations since the Maunder Minimum

16:15–16:40 – Coffee Break

Session 4

Chair: V. Obridko

- 16:40–17:10 – J.-P. Rozelot: The Change of the Solar Shape in Time and Its Consequences for Space Climate (invited)
17:10–17:30 – G. Maris: Solar Flare Cycles (invited)
17:30–17:45 – J. R. Johnson: An Information-Theoretical Approach to Solar Flare Occurrence
17:45–18:00 – V. K. Verma: On the Long-term Period of North-South Asymmetry of Solar Active Phenomena
18:00–18:20 – K. Georgieva: Long-term Variations in the North-South Solar Asymmetry and their Solar-Terrestrial Influences (invited)
18:20–18:35 – M. Sh. Gigolashvili: About N-S Asymmetry in the Solar Differential Rotation

18:35 – 19:30 – Poster Session

Thursday, 14 September

Session 5

Chair: S. Solanki

- 8:30–9:00 – E. Ivanov: Active Longitudes: Structure, Dynamics and Origin (invited)
9:00–9:30 – I. Usoskin: Long-term Persistence of Solar Active Longitudes and Its Implications for the Solar Dynamo Theory (invited)

Topic II: Heliosphere and Cosmic Rays

- 9:30–10:00 – E. Cliver: The Solar Wind during Grand Minima (invited)
10:00–10:30 – K. Mursula: Bashful Ballerina: The Asymmetric Sun Viewed from Heliosphere (invited)

10:30–11:00 – Coffee Break

Session 6

Chair: L. Svalgaard

- 11:00–11:30 – H. Cremades: CMEs and related phenomena: solar cycle aspects (invited)
11:30–11:45 – M. Mierla: The Evolution of the Solar Corona during August–October 1996
11:45–12:00 – M. D. Popescu: Transparent Jets in Coronal Holes: the Source of Fast Solar Wind?
12:00–12:15 – I. Roth: Heliospheric and Terrestrial Particle Energization
12:15–12:45 – K. McCracken: Long-term Variations in the Heliospheric Magnetic Field and Its influence on SEP Occurrence (invited)
12:45–13:05 – A. Rouillard: Organization of Solar Activity and Modulation of Galactic Cosmic Rays in the Last Three Solar Cycles (invited)

13:05–14:30 Lunch

Session 7

Chair: W. Schmutz

- 14:30–15:00 – I. Veselovski: Dimensionless Scaling Approaches to the Solar and Heliospheric Processes (invited)
15:00–15:30 – J. Beer: Long-term Solar Variability Derived From Cosmogenic Radionuclides (invited)
15:30–15:45 – H. Miyahara: Variability of Solar Cycles during the Last 1200 years from Radiocarbon Data

Topic III: Terrestrial Effects

- 15:45–16:15 – L. Svalgaard: Physics-based Long-term Geomagnetic Indices (invited)
16:15–16:45 – C. Demetrescu: Long-term Variations in the Geomagnetic Field. Any Connection with the Solar Activity? (invited)

16:45–17:15 – Coffee Break

Session 8

Chair: J. Kozyra

- 17:15–17:30 – S. Wing: Solar Cycle Effects in Geomagnetic Activity Forecasting
17:30–18:00 – J. Johnson: The Variability of Magnetospheric Dynamics Over the Solar Cycle (invited)
18:00–18:20 – M. Echim: Multiscale Dissipation of the Energy in the Solar Wind – Magnetosphere System (invited)
18:20–18:35 – O. Maris: Geomagnetic Imprint of High-Speed Streams in Solar Wind
18:35–18:50 – I. Myagkova: CORONAS-F satellite data (2001–2005 years) – from maximum to minimum of the last solar activity cycle

20: 00 – Symposium Dinner at *Sinaia Hotel*

Friday 15 September

Session 9

Chair: C. Demetrescu

- 8:30–8:45 – H. Basurah: Auroras in Arabian Peninsula
8:45–9:15 – P. Bencze: What Do We Know on the Long-term Change of the Earth Ionosphere (invited)
9:15–9:45 – A. Ruzmaikin: Effects of Solar Variability on Global Climate Patterns (invited)
9:45–10:05 – M. Enghoff: Experimental Evidence for the Role of Ions in Particle Nucleation Under Atmospheric Conditions (invited)
10:05–10:35 – B. Tinsley: The Role of Global Electric Circuit in Solar and Internal Forcing of Clouds and Climate (invited)

10:35–11:00 – Coffee Break

Session 10

Chair: J. Johnson

11:00–11:30 – J. Kozyra: Changes in the Middle/Upper Atmosphere During Powerful High Speed Streams in 2003: A New Pathway for Forcing Long-Term Variability (invited)

11:30–12:00 – E. Palle: Is There Really Evidence of Cosmic Rays and Global Climate (invited)

12:00–12:15 – G. Didebulidze: Different Sensitivity of Annual Distribution of Cloudless Days and Nights on Magnetically Disturbance as a Possible Result of Space Weather Influence on Climate

12:15–12:30 – G. S. Peckmezci: Atmospheric Phenomena in Istanbul Area

12:30–13:00 – J. Feynman: Has Solar Variability Affected Human Culture? (invited)

13:00–13:20 – E. Babayev: Effects of Solar, Geomagnetic and Cosmic Ray Variability on Biological and Ecological Systems: Some Results of Azerbaijani Studies (invited)

13:20–14:30 – Lunch

Session 11

14:30–15:30 – Hot Discussions

What Happened to the Sun during the Last 100 Years?

Moderator: J. Feynman

15:30–16:30 – Hot Discussions

**How Does the Sun Affect Climate
and what Evidence We Have for that?**

Moderator: P. Bencze

16:30–17:00 – Coffee Break

17:00– 17:30 – A. Ruzmaikin – SYMPOSIUM SUMMARY

END OF SYMPOSIUM

Thank You!

***See You at The Third International Symposium on Space
Climate!***

Poster List

Topic I: Sun and Solar Activity

1. D. Besliu-Ionescu, A. Donea, G. Maris , P. Cally, C. Lindsey: Seismicity of Some Solar Active Regions Hosting X-Class Flares
2. D. K. Callebaut: Conical Blades of Constant Angular Velocity Related to Rest-Latitudes of Global Magnetic Surface Fields
3. I. Charvatova: Are Mid-Term Periodicities Caused by Solar Motion Due to the Inner Planets?
4. I. Charvatova and J. Strestik: Relations Between The Solar Motion And Solar And Geomagnetic Activities Since The Year 1844
5. V.N. Ishkov, I.G. Shibaev: Cycles of Solar Activity: General Characteristics and Estimation of the Restored Part of Wolf Series
6. D.R. Japaridze, M. Sh. Gigolashvili, Kukhianidze V.J.: Investigation of Differential Rotation of Large-Scale Magnetic
7. N.A. Krivova, S.K. Solanki, L. Balmaceda, T. Wenzler: Reconstruction of Solar UV Irradiance since the Maunder Minimum
8. D. Passos, I. Lopes: The Luminosity Evolution of the Sun during the Last 11 Millennia
9. K. Mursula, T. Asikainen, I. Usoskin: Additional Evidence for the Relic Magnetic Field in the Sun
10. A. Oncica: Long Term Behaviour of the North-South Asymmetry of the Sunspot Area
11. M. Rusu: Numerical Analysis of the Wolf's Number Time Series; The Asymmetry of its Variation and a Possible Interpretation
12. R. Getko: Quasi-Cycles of Sunspot Area Fluctuations
13. R. Getko: The Statistical Properties of Strong Positive Sunspot Area Fluctuations
14. F. Steinhilber, M. Scholl: Reconstructing the TSI
15. A. G. Tlatov: Secular Cycle of Solar Corona in Minima Activity
16. A. G. Tlatov: Long-Term Variation in the Solar Rotation
17. J. M. Vaquero, M. C. Gallego, R. M. Trigo: The Sunspot Numbers during 1736–1739 Revisited

Topic II: Heliosphere and Cosmic Rays

18. T. Hiltula, K. Mursula: Long Dance of the Bashful Ballerina
19. O. Maris: High Speed Streams in Solar Wind from ACE Data
20. E. Moise, J. Kuhn, J. Raymond,: Towards Developing a Ground-Based Coronal and Heliospheric Plasma Diagnostic

Topic III: Terrestrial Effects

21. T. Asikainen: Long-Term Behaviour of Energetic Particle Fluxes at Low L-Shells and their Relation to SAA
22. V. Dobrica, C. Demetrescu, C. Boroneant, G. Maris: Influences of the Solar and Geomagnetic Activity on the Climatic Variations in Romania;
23. O. Ghenescu, M. Ghenescu: Influence of Ionizing Radiations in AII-BVI Polycrystalline Thin Films Used as Solar Cell Materials for Space Applications

24. M. Gigolashvili, L. Tvildiani, G. Ramishvili, K. Janashia, P. Pitiurishvili: Cardiac Arrhythmias and Space Weather
25. V. Ishkov: Influence of the Solar Geoeffective Phenomena on a Climate of the Earth's Environment Space
26. B. Kirov, K. Georgieva: Long-Term Changes in the Correlation between Solar and Geomagnetic Activity
27. Z. Kobylinsky: Secular Trends in Geomagnetic and Cosmic Ray Data
28. N. Koshkin, L. Korniyuchuk, E. Korobeynikova, L. Shakun, S. Strakhova: The Atmospheric Drag of Artificial Satellites and Solar Activity Variations
29. S.I. Molodykh, G.A. Gherebtsov, V.A. Kovalenko, I. A. Rubtsova: The Solar Activity Influence on the Earth Troposphere
30. K. Mursula, D. Martini: A New Dedicated Index for Long-Term Studies of Geomagnetic Activity
31. A. Ozguc, T. Atac, D. Okcu, R. Pektas: Coherency between Solar Activity Indices and Meteorological Parameters at 11-Year Period in Istanbul Area
32. O.M. Raspopov, V.A. Dergachev: Regional Features of the Earth's Atmosphere Climatic Response to Long-Term Solar Activity Variations
33. M. Stavinschi, C. Mosoia: Long-term Change in the Sun and its Effects for the Public
34. M. Voiculescu, I. Usoskin, K. Mursula, G. Kovaltsov: Connection between Cloud Cover at Different Altitudes and Cosmic Ray Induced Ionization
35. M. Voiculescu, T. Nygren: Interplanetary Magnetic Effects on Transient Ionospheric Phenomena
36. S. Wing, J.R. Johnson: Solar Cycle Effects in Geomagnetic Activity Forecasting
37. S. Zaharia: Self-consistent Geomagnetic Storm Modelling