



COST Action ES0803 “Developing space weather products and services in Europe”

Workshop on Final Results, Prague, 13-14 March 2012

http://www.ufa.cas.cz/html/conferences/workshop_2012/

Scientific Programme

Session 1: Advanced methods to model and predict space weather effects

Conveners: Jurgen Watermann, Consuelo Cid

Tuesday 13 March 2012

14:00 – 17:35

Part 1: Group resp. subgroup specific presentations

14:00 – 14:30 Jurgen Watermann, WG1 and SG1.1 Overview

14:30 – 14:50 Peter Wintoft, SG1.2 report

14:50 – 15:10 Ioanna Tzagouri, Progress in space weather modeling in an operational environment (SG1.3 report)

15:10 – 15:30 Consuelo Cid, SG1.4 report

Coffee break

Part 2: Invited/contributed talks

15:45 – 16:15 Walter Gonzalez, Interplanetary origin of intense, superintense and extreme geomagnetic storms

16:15 – 16:35 Francesca Zuccarello, A multi-instrument study of halo CMEs from their initiation in the solar atmosphere to the Earth environment

16:35 – 16:55 M. E. Innocenti, Application of Data Assimilation to a Solar Wind Forecasting Model: towards day-to-day operability

16:55 – 17:15 Nicolas Bergeot, Experience from the 23rd Solar Cycle to Study the Effect of Space Weather on Ionospheric Total Electron Content

17:15 – 17:35 Jan Lastovicka, Space weather/climate impact on the long-term trends in the ionosphere

Session 2: Space weather products and services

Conveners: Anna Belehaki, Ronald Van der Linden

Wednesday 14 March 2012

09:00 – 12:00

09:00 – 09:30 Lee-Anne McKinnell, Space Weather products and services released from the RWC in South Africa

09:30 – 09:55 D. Heynderickx and R. Van der Linden, Identification of European space weather resources (SG2.1 report)

09:55 – 10:20 I. Stanislawska, Market segmentation including cartography and users requirement (SG2.2 report)

Coffee break

10:50 – 11:10 Peter Velinov, Simeon Asenovski, Lachezar Mateev, Improved operational Cosmic Ray ionization model for the atmosphere with account of 6 characteristic intervals

11:10 – 11:35 Lev Dorman, Space Weather and satellite anomalies: Observations and forecasting models

11:35 – 12:00 M. Hapgood, A. Belehaki, R. Van der Linden, Feasibility study for new market-oriented products and services – overall summary and conclusions from COST ES0803 WG2

Session 3: Dissemination, education and outreach activities

Conveners: Petra Vanlommel and Mauro Messerotti

Wednesday 14 March 2012

15:00 – 18:00

15:00 - 15:25 Petra Vanlommel, Overview of WG3 activities

15:25 – 15:45 Michel Kruglanski, Stijn Calders, The European Space Weather Portal – a tool for exploitation

15:45 – 16:05 Anna Belehaki, Jean Lilensten, The Journal of Space Weather and Space Climate

Coffee break

16:35 – 16:55 Yurdanur Tulunay, The COST example for international collaborative outreach to the general public: I love my Sun

16:55 – 17:15 Mauro Messerotti, Training schools in COST ES0803

17:15 – 17:30 Beata Dziak-Jankowska , Iwona Stanislawska, Maria Milodrowska, Lukasz Tomasik, Space Weather education in Poland

17:30 – 17:45 L. Pustil'nik, L.Dorman, D. Pundak, S. Pustil'nik, Experience of Space Weather education in Israel Cosmic-Ray center.

17:45 – 18:00 Katrien Bonte, Mathematics behind observation and detection of Space Weather phenomena, a project for third grade students (17-18 years old) to popularize (applied) mathematics.

Poster session

Poster viewing: Wednesday 14 March 2012, 12:00 – 13:00 and 14:00 – 15:00

1. Real time forecasting tool for hmF2 at midlatitudes combining quiet and disturbance hmF2 models
E. Blanch, S. Magdaleno, D. Altadill, J.M. Torta

2. Sources and Complexity of the Super Geomagnetic Storms during the Maximum Phase of Solar Cycle 23
G. Maris, O. Maris, M. Mierla, C. Oprea, O. Stere

3. Statistical plasma properties derived from DEMETER observations and GNSS diagnostics
H. Rothkaehl, D. Przepiórka, E. Słomińska, M. Gromadzki, M. Grzesiak, A. Krankowski

4. Magnetic eta index and the ability to forecast sporadic E layer appearance.
Beata Dziak-Jankowska, Dalia Buresova, Tomasz Ernst, Iwona Stanislawski, and Lukasz Tomasiak

5. Intercomparison between the measured and calculated with the empirical model absorbed dose rates on ISS during space walks
Ts.P. Dachev, N.G. Bankov, B.T. Tomov, Pl.G. Dimitrov, Yu.N. Matviichuk

6. Solar Wind Influence to Global Atmospheric Electric Circuit through Trans-Polar Ionospheric Potential. Prediction by Developing Operational Model
P.T. Tonev and P.I.Y. Velinov

7. CONTRIBUTION OF CONVECTION-DIFFUSION AND DRIFT MECHANISMS IN FORMATION OF COSMIC RAY ANISOTROPY IN THE HELIOSPHERE, AND ITS DEPENDENCE FROM PARTICLE ENERGY
Lev I. Dorman

8. Modulation of galactic CR in respect to radiation hazard for astronauts and electronics for Mars mission
Lev Dorman, David Applbaum, Uri Dai, Lev Pustil'nik, Abraham Sternlieb, Igor Zukerman

9. ON THE LONG-TERM VARIATION OF GALACTIC COSMIC RAYS:
CONVECTION-DIFFUSION AND DRIFT MODULATIONS IN THE
HELIOSPHERE, EXPECTED RADIATION HAZARD

Lev I. Dorman

10. Forecasting of total radiation fluence and radiation dose from SEP events en
route to and at Mars

Lev Dorman, David Applbaum, Uri Dai, Lev Pustil'nik, Abraham Sternlieb, Igor
Zukerman

11. Great SEP events and space weather: Expected radiation hazard for space
probes in space at different distances from the Sun, airplanes at different air-lines, and
on the ground in dependence of altitude and cutoff rigidity

Lev Dorman, David Applbaum, Uri Dai, Lev Pustil'nik, Abraham Sternlieb, Igor
Zukerman

12. Interplanetary medium-magnetosphere coupling in short time scales

E. Saiz, C. Cid, Y. Cerrato, W.D. Gonzalez, J. Aguado and A. Guerrero

13. Neural network modelling of the impact of solar activity on the Earth
environment

Pavel Hejda, Josef Bochníček, Fridrich Valach, Miloš Revallo

14. Geomagnetic activity at predominant south interplanetary magnetic field
orientation

Fridrich Valach, Miloš Revallo, Pavel Hejda, Josef Bochníček

15. Advanced topside ionosphere and plasmasphere electron density profiling
technique: an overview of progress achieved within the COST Action ES0803

Ivan Kutiev, Pencho Marinov, Stefka Fidanova, Anna Belehaki, Ioanna Tsagouri

16. Method to Retrieve Thermospheric Parameters from Daytime Ionospheric
Observations at Mid-latitudes and Geomagnetic Equator

A.V. Mikhailov, A. Belehaki, L. Perrone, B. Zolesi, and I. Tsagouri