

**Thursday 2 April morning:  
Presentation and Discussion of Research Proposals**

**Part 1: Observations, Data Products, Models (WG1)**

*Chair: J. Watermann*

- 09.30 Monitoring and predicting solar radio bursts affecting wireless communications and GPS: roadmap to the development of an operational service  
*M. Messerotti, M. Molinaro, E.L. Afraimovich*
- 09.45 Solar eruptions, energetic particles and turbulence in coronal and heliospheric plasmas  
*R. Vainio, T. Laitinen, N. Agueda, M. Battarbee, E. Kilpua, H. Koskinen, S. Pohjolainen, J. Pomoell, A. Sandroos*
- 10.00 Developing near real time space weather tools in the Siberian region  
*G.A. Zherebtsov, E. Amata, A.P. Potekhin, V.I. Kurkin, A. Potapov, M. Lester*
- 10.15 Thermosphere parameters and solar EUV radiation monitoring using routine ionospheric observations  
*A.V. Mikhailov, L. Perrone, A. Belehaki*
- 10.30 Now- and short-term forecasting of the chemical composition of the middle atmosphere due to photochemical reactions based on observations of the space experiment LYRA/PROBA2  
*W. Schmutz, T. Egorova, E. Rozanov, M. Vogel*
- 10.45 Discussion of items applying to part 1
- 11.00 Coffee break

**Part 2: Multiple Space Weather Services (WG2)**

*Chair: R. van der Linden*

- 11.30 State of the art survey on real-time available data and products that characterize near-Earth space conditions up to GEO orbits  
*I. Kutiev, A. Belehaki*
- 11.45 Ionospheric physics and radio propagation at Istituto Nazionale di Geofisica and Vulcanologia: developments and cooperation within COST Action ES0803  
*L.Alfonsi, J.B.Arokiasamy, C.Bianchi, G.DeFranceschi, G.Fontana, A.Malagnini, S.Pau, M.Pezzopane, L.Perrone, M.Pietrella, V.Romano, C.Scotto, L.Spogli, G.Tutone, B.Zolesi, E.Zuccheretti*
- 12.00 Solar and Space Weather Center in Sweden  
*M. Wik, H. Lundstedt, P. Wintoft*
- 12.15 Discussion of items applying to part 2

**Part 3: Model Performance Assessment (WG1)**

*Chair: P. Wintoft*

- 12.30 On the assessment of the performance of existing space weather models: review study of current practice and available services  
*I. Tsagouri, A. Glover, A. Belehaki*
- 12.45 On the assessment of ionospheric operational models: evaluation of the SWIF model performance during disturbed ionospheric conditions  
*I. Tsagouri, L. Perrone, A. Mikhailov*

13.00 The ultimate space storm  
*M. Messerotti*

**Part 4: Outreach Activities (WG3)**

*Chair: V. Zigman*

13.15 ES0803 WG3 Sub-Project: "I LOVE MY SUN 2" (An outreach activity in Europe – Space Weather and the Sun as conceived by the school children of age 7-11)  
*Y. Tulunay, E. Tulunay, E. Karamanc*

13.30 Discussion of items applying to part 4

13.45 End of session

**Thursday 2 April afternoon:**

**Advanced methods to model and predict space weather effects: Presentation of Research Projects and Studies**

**Part 5: Sun and Interplanetary Space**

*Chair: H. Lundstedt*

15.00 Mechanisms of initiation of Coronal Mass Ejections  
*F. Zuccarello, P. Romano, A. Smyrli, F.P. Zuccarello*

15.15 Latest results for the monitoring of the Earth and Moon radiation environment by instruments developed in STIL-BAS  
*B.T. Tomov, Ts.P. Dachev, Yu.N. Matviichuk, Pl.S. Dimitrov, G. De Angelis, F. Spurny*

15.30 Space weather relevant research activities at the Space Research Institute, Austrian Academy of Sciences  
*R. Nakamura, C. Möstl, M.L. Khodachenko, T.L. Zhang*

15.45 Coffee break

**Part 6: Poster Session**

*Chair: H. Lundstedt*

16.00 Poster introduction: 2-min per participant

16.45 Poster viewing

18.00 Welcome drink and continuation of poster viewing (until 19.15)

**Friday 3 April morning:**

**Advanced methods to model and predict space weather effects: Presentation of Research Projects and Studies**

**Part 7: Magnetosphere-Ionosphere Physics**

*Chair: P. Wintoft*

09.30 Inner Earth's magnetosphere modeling: Particles and fields  
*N. Yu. Ganushkina*

09.45 From superposed epoch analysis results to the ring current losses processes  
*C. Cid, E. Saiz, Y. Cerrato, J. Aguado*

10.00 Monitoring the dynamics of the ionosphere-plasmasphere system by ground-based ULF wave observations  
*M. Vellante, M. Förster, M. Pezzopane, N. Jakowski, T.L. Zhang, U. Villante,*

- M. De Lauretis, B. Zolesi, W. Magnes*  
10.15 On the diurnal variation of polar cap patches and NmF2 as observed from Svalbard  
*J. Moen*

### **Part 8: Geomagnetic Effects**

*Chair: J. Lastovicka*

- 10.30 Geoeffectiveness of solar energetic events and daily forecasts of geomagnetic activity  
*J. Bochnicek, P. Hejda, M. Revallo, F. Valach*
- 10.45 Monitoring, Modelling and Prediction of Geomagnetic Data and Hazards  
*A.W.P. Thomson, E. Clarke*
- 11.00 coffee break

### **Part 9: Ionospheric Radio Research**

*Chair: J. Lastovicka*

- 11.30 Ionospheric peak height density disturbance in response to solar wind conditions:  
A potential empirical model  
*E. Blanch, D. Altadill*
- 11.45 Space Weather Monitoring by Space Based GNSS Measurements  
*N. Jakowski, C. Mayer, M.M. Hoque*
- 12.00 Climatology of the Ionospheric Scintillations over the Auroral and Cusp European regions  
*L. Spogli, L. Alfonsi, G. De Franceschi, V. Romano, M. Aquino, A. Dodson*
- 12.15 Developing quantitative ionospheric space weather forecasts from state of the art  
Solar/Heliospheric observations.  
*V. Bothmer, N. Jakowski*

### **Part 10: Model Performance**

*Chair: D. Heynderickx*

- 12.30 Performance assessment: approaching a quantitative comparison between  
observations and models for ionospheric data assimilation systems  
*A.C. Bushell, D.R. Jackson*
- 12.45 Models of the moon radiation environment for Chandrayyan-1 and a comparison with  
the RADOM experiment data  
*G. De Angelis, Ts.P. Dachev, B. Tomov, Yu. Matviichuk, Pl. Dimitrov, F. Spurny*

### **Part 11: Numerical and System Tools**

*Chair: D. Heynderickx*

- 13.00 On the use of tools from complexity science for predictive space weather  
*M. Materassi, G. Consolini, P. De Michelis, R. Tozzi*
- 13.15 ODI – Open Data Interface for SAAPS, SEDAT, and SPENVIS  
*P. Wintoft, D. Heynderickx, L. Eliasson, H. Evans*
- 13.30 Predicting the extremes of space weather: The potential for automated  
computer-based predictions?  
*R. Qahwaji, T. Colak, S. Ipson*
- 13.45 End of session