CAL PUBLICATIONS
(21 November 2006)

A. Joint Refereed Publications

26. **Enell, C.-F., E. Arnone, O. Chanrion,** T. Adachi, P. T. Verronen, A. Seppälä, T. Ulich, E. Turunen, et al. Parameterisation of the chemical impact of transient luminous events in the middle atmosphere. To be submitted to *Annales Geophysicae*, 2006.

25. Rodger, C. J., **C.-F. Enell**, E. Turunen, M. A. Clilverd and N. R. Thomson. Significance of lightning driven inner radiation belt energy deposition into the atmosphere: Implications for ionisation-levels and neutral chemistry. To be submitted to *Annales Geophysicae*, 2006.

24. **Arnone, E., P. B. Berg**, B. Christiansen, P. Thejll and N.F. Arnold. Stratospheric ozone perturbations: on the possibility of inferring the impact of small regional perturbations from uniform experiments. To be submitted to *Advances in Geosciences.*, 2006.

23. **Berg, P., E. Arnone,** B. Christiansen, P. Thejll and N.F. Arnold.The radiative and dynamical response of the middle and low atmosphere to local stratospheric ozone perturbations: A climatological model study. To be submitted to *J. Geophys. Res.*, 2006.

22. **Berg, P., B.** Christiansen, P. Thejll and N.F. Arnold. The dynamical response of the middle atmosphere to the tropospheric solar signal. To be submitted to *J. Geophys. Res.*, 2006.

21. Montanya J., **O. A. van der Velde**, S. Soula, J. Bech and **Á. Mika.** Analysis of a displaced sprite in Northern Spain during Eurosprite 2005. To be submitted to *Geophys. Res. Lett*., 2006.

20. Rycroft, M. J., **A. Odzimek**, N. F. Arnold and M. Fullekrug. Charging and discharging the global atmospheric electric circuit - the role of lightning and sprites. To be submitted to *J. Atm. Solar-Terr. Phys.*, 2006.

19. Rodger, C.J., M.A. Clilverd, D. Nunn, P.T. Verronen, J. Bornik and E. Turunen. The energy spectrum of relativistic microbursts: comparison with VLF chorus as a source mechanism. Submitted to *Geophys. Res. Lett*., 2006.

18. Verronen, P.T., A. Seppälä, H.M. Pickett, E. Kyrölä, J. Tamminen and E. Turunen. Production of Odd Hydrogen in the Mesosphere During the January 2005 Solar Proton Event. Submitted to *Geophys. Res. Lett*., 2006.

17. **Ignaccolo, M.**, T. Farges, E. Blanc and M. Füllekrug. Automated Chirp Detection with Diffusion Entropy: Application to Infrasound from Sprites. *Chaos, Solitons & Fractals*, accepted, 2005.

16. Haldoupis, C., **R. J. Steiner**, **Á. Mika**, S. Shalimov, R. A. Marshall, U. S. Inan, T. Bösinger, and T. Neubert. "Early/slow" events: a new category of VLF perturbations observed in relation with sprites. *J. Geophys. Res.*, in press, 2006.

15. **Mika, Á.**, C. Haldoupis, T. Neubert, H. T. Su, R. R. Hsu, **R. J. Steiner** and R. A. Marshall: Early VLF perturbations observed in association with elves. *Ann. Geophys.*, 24, 2179-2189, 2006.

14. Füllekrug, M., and M. Rycroft. The contribution of sprites to the global atmospheric electric circuit. *Earth, Planets and Space*, 58, 1193-1196, 2006.

13. Bösinger, T., **Á. Mika**, S. L. Shalimov, C. Haldoupis and T. Neubert. Is there a unique signature in the ULF-response to sprite-associated lightning flashes? *J. Geophys. Res.*, 111, A10310, doi:10.1029/2006JA011887.

12. **Ignaccolo, M.**, T. Farges, **Á. Mika,** T. H. Allin, **O. Chanrion,** E. Blanc, A. C. Fraser-Smith and M. Füllekrug. The Planetary Rate of Sprite Events. *Geophys. Res. Lett*., 33, 11, L11808, doi:10.1029/2005GL025502, 2006.

11. Clilverd, M.A., A. Seppälä, C. J. Rodger, N.R. Thomson, P. Verronen, E. Turunen, T. Ulich, J. Lichtenberger, and P. Stienbach. Modeling polar ionospheric effects during the October-November 2003solar proton events. *Radio Science*, 41, RS2001, doi:10.1029/2005RS003290, 2006.

10. Rodger, C.J., M.A. Clilverd, P.T. Verronen, T. Ulich, M.J. Jarvis and E. Turunen. Dynamic geomagnetic rigidity cutoff variations during a solar proton event. *J. Geophys. Res.*, 111, A04222, doi:10.1029/2005JA011395, 2006.

9. Verronen, P.T., T. Ulich, E. Turunen and C.J. Rodger. Sunset transition of negative charge in the D-region ionosphere during high-ionization conditions. *Ann. Geophys.*, 24, 187-202, 2006.

8. **van der Velde, O. A., Á. Mika,** S. Soula, C. Haldoupis,T. Neubert and U. S. Inan. Observations of the relationship between sprite morphology and in-cloud lightning processes. *J. Geophys. Res.*, 111, D15203, doi:10.1029/2005JD006879, 2006.

7. Verronen, P. T., A. Seppälä, M. A. Clilverd, C. J. Rodger, E. Kyrölä, **C.-F. Enell**, T. Ulichand E. Turunen. Diurnal variation of ozone depletion during the October-November 2003 solar proton event, *J. Geophys. Res.*, 110, A09S32, doi:10.1029/2004JA010932, 2005.

6. **Enell, C.-F.**, A. Kero, E. Turunen, T. Ulich, P. T. Verronen, A. Seppälä, S. Marple, F. Honary and A. Senior. Effects of D-region RF heating studied by the Sodankylä Ion Chemistry model. *Ann. Geophys.*, 23, 1575-1583, 2005.

5. M. Füllekrug, N.B. Crosby and J. Lilensten, 'Solar and heliospheric influences on the Earth's weather climate', Journal of Atmospheric and Solar Terrestrial Physics, 67(8-9), 753, 2005.

4. **Mika, Á.**, C. Haldoupis, R. A. Marshall, T. Neubert and U. S. Inan. Subionospheric VLF signatures and their association with sprites observed during EuroSprite-2003. *J. Atm. Solar-Terr. Phys.*, 67, 1580-1597, 2005.

3. Neubert, T., T. H. Allin, E. Blanc, T. Farges, C. Haldoupis, **Á. Mika**, S. Soula, L. Knutsson, **O. van der Velde**, R. A. Marshall, U. Inan, G. Sátori, J. Bór, A. Hughes, A. Collier, S. Laursen and I. L. Rasmussen. Co-ordinated observations of transient luminous events during the EuroSprite2003 campaign. *J. Atm. Solar-Terr. Phys.*, 67, 807-820, 2005.

2. Farges, T., E. Blanc, A. Le Pichon, T. Neubert and T. H. Allin. Identification of infrasound produced by sprites during the Sprite2003 campaign. *Geophys. Res. Lett.*, 32, 1, L01813, doi:10.1029/2004GL021212, 2005.

1. Haldoupis, C., T. Neubert, U. Inan, **Á. Mika**, T. H. Allin and R. A. Marshall. Sub-ionospheric early VLF signal perturbations observed in one-to-one association with sprites. *J. Geophys. Res., 109, A10,* A10303, 10.1029/2004JA010651, 2004.

B. Posters and Talks

131. Farges, T., E. Blanc, and M. Tanguy. Lightning effect on the lower ionosphere deduced from MF recordings. AGU Fall Meeting 2006, San Francisco, 11-15 December, 2006.

130. **Van der Velde, O. A.,** W. A. Lyons, S. A. Cummer, and T. Nelson. Analysis of the First Gigantic Jet Recorded From the Continental United States. AGU Fall Meeting 2006, San Francisco, 11-15 December, 2006.

129. Soula, S., O. **A. van der Velde**, and T. Neubert. Characteristics of Thunderstorms Producing Sprites Over France. AGU Fall Meeting 2006, San Francisco, 11-15 December, 2006.

128. Rycroft, M. J., **A. Odzimek,** N. F. Arnold, M. Fullekrug. Charging and Discharging the Global Atmospheric Electric Circuit: the Role of Lightning, Sprites and Gigantic Jets. 3rd IAGA/ICMA workshop on "Vertical Coupling in the Atmosphere/Ionosphere System", Varna, Bulgaria, 18-22 September 2006.

127. Haldoupis, C., **R. J. Steiner**, **Á. Mika**, S. Shalimov, and R. A. Marshall. Early/slow events: a new category of VLF perturbations observed in relation with sprites. 3rd IAGA/ICMA workshop on "Vertical Coupling in the Atmosphere/Ionosphere System", Varna, Bulgaria, 18-22 September 2006.

126. **Mika, Á.**, D. Nunn and C. Haldoupis. Modelling of red sprites as a set of interacting column segments in the Earth-ionosphere waveguide. 2nd VERSIM Workshop, Sodankylä, Finland, September 2006.

125. **Mika, Á.**, C. Haldoupis, J. Lichtenberger and U. S. Inan. Comparison of the performances of the OmniPAL and Stanford VLF receivers. 2nd VERSIM Workshop, Sodankylä, Finland, September 2006.

124. Seppälä, A., P.T. Verronen, M. A. Clilverd, C. J. Rodger, E. Turunen, T. Ulich, **C.-F. Enell**, V.F. Sofieva, J. Tamminen, and E. Kyrölä. Importance of proton spectral hardness in the atmospheric effects of solar proton events - the Jan 2005 events. 2nd VERSIM Workshop, Sodankylä, Finland, September 2006.

123. **Mika, Á.**, and C. Haldoupis. Signatures of sprites and elves in sub-ionospheric VLF recordings. Seminar given at the University of Oulu, Finland, 25 September, 2006.

122. **Enell, C.-F.**, E. Turunen, T. Turunen, T. Ulich, A. Seppälä, and P.T. Verronen. The effect of variable solar short-wave radiation on the concentration of nitric oxide in the MLT region. 4th

IAGA/ICMA/CAWSES Workshop on Long-Term Changes and Trends in the Atmosphere, Sodankylä, Finland, September 2006.

121. **Mika. Á, A. Odzimek, C.-F. Enell, E. Arnone, F. Boberg,** J. Bór, **M. Ignaccolo, O. Chanrion, O. Van der Velde, P. Berg,** T. Neubert, S. Soula, Z. Nieckarz and the Danish team, CAL and collaborators. Eurosprite2006. CAL Final Meeting, Copenhagen, 24-25 August, 2006.

120. Farges, T. and E. Blanc. Summary of the CEA contributions to the CAL project (WP11) and new findings in 2006. CAL Final Meeting, Copenhagen, 24-25 August, 2006.

119. Haldoupis, C. and **Á. Mika**. Coupling of Atmospheric Layers – WP9. CAL Final Meeting, Copenhagen, 24-25 August, 2006.

118. **Enell, C.-F.** and the Finnish CAL WP6 team. Chemistry of the mesosphere, TLEs and particle events (Final report of the Finnish CAL groups). CAL Final Meeting, Copenhagen, 24-25 August, 2006.

117. **Berg, P., E. Arnone,** N.F. Arnold, B. Christiansen and P. Thejll. Atmospheric response to local ozone perturbations. CAL Final Meeting, Copenhagen, 24-25 August, 2006.

116. **Chanrion, O.** and T. Neubert. Particle Simulations of Sprite Streamers. CAL Final Meeting, Copenhagen, 24-25 August, 2006.

115. **van der Velde, O.** Thunderstorm processes and statistics related to sprite-producing lightning flashes. CAL Final Meeting, Copenhagen, 24-25 August, 2006.

114. Crosby N. WP2: CAL Training Programme and WP3: CAL Outreach Programme. CAL Final Meeting, Copenhagen, 24-25 August, 2006.

113. **Odzimek, A.**, Rycroft M. J., Arnold, N. F. The role of sprites in the Global Atmospheric Electric Circuit. CAL Final Meeting, Copenhagen, 24-25 August, 2006.

112. **Arnone, E., P. Berg, F. Boberg, O. Chanrion, C.-F. Enell**, T. Farges, **M. Ignaccolo, Á. Mika, A. Odzimek, R. Steiner, O. van der Velde**, T. Allin, S. Laursen, and T. Neubert. The Eurosprite2005 campaign. 33rd Annual European meeting on Atmospheric Studies by Optical Methods, Kiruna, Sweden, August 2006.

111. **Enell, C.-F.**, E. Turunen, A. Kero, T. Ulich, K. Kaila, J. Gumbel, J. Hedin, M. Khaplanov, and G. Witt. Night-time emissions from the mesosphere and ionosphere (NEMI). 33rd Annual European meeting on Atmospheric Studies by Optical Methods, Kiruna, Sweden, August 2006.

110. **Chanrion, O.** and T. Neubert. Global estimates of electric fields, electron energies, excitation and ionisation rates in streamer region from ASIM spectral observations. ASIM science workshop, ESA/ESTEC. Noordwijk, The Netherlands, 26-27 june 2006.

109. **Enell, C.-F.**, E. Turunen, A. Kero, T. Ulich, K. Kaila, J. Gumbel, M. Khaplanov, J. Hedin, J. Stegman, and G. Witt. NEMI (Night-time Emissions from the Mesosphere and Ionosphere). Finnish national COSPAR committee meeting, M/S Viking Gabriella, Helsinki-Stockholm-Helsinki, May 2005.

108. Seppälä, A., E. Kyrola, P.T. Verronen, V.F. Sofieva, J. Tamminen, S. Hassinen and L. Backman. Observations of Energetic Particle Effects on the Stratosphere. Atmospheric Science Conference, ESA/ESRIN, Italy, 8-12 May 2006.

107. Seppälä, A., E. Kyrola, P.T. Verronen, V.F. Sofieva, J. Tamminen, S. Hassinen and L. Backman. GOMOS Observations of Energetic Particle Effects on the middle atmosphere. 3rd International Atmospheric Limb Workshop, Montréal, Canada. April 25-28, 2006.

106. Seppälä, A., E. Kyrola, P.T. Verronen, V.F. Sofieva, J. Tamminen, S. Hassinen and L. Backman. Observations of Energetic Particle Effects on the Stratosphere. European Geosciences Union, General Assembly 2006, Vienna, Austria, 2-7 April 2006.

105. Seppälä, A., P.T. Verronen, V.F. Sofieva, J. Tamminen, E. Kyrola, C.J. Rodger and M.A. Clilverd. Destruction of the Tertiary Ozone Maximum during a Solar Proton Event. European Geosciences Union, General Assembly 2006, Vienna, Austria, 2-7 April 2006.

104. Turunen, E., P.T. Verronen, T. Ulich, C.J. Rodger. Sunset transition effects in the D-region ionosphere. European Geosciences Union, General Assembly 2006, Vienna, Austria, 2-7 April 2006.

103. Verronen, P.T., A. Seppälä, E. Kyrola, J. Tamminen. Mesospheric production of odd hydrogen during a solar proton event. European Geosciences Union, General Assembly 2006, Vienna, Austria, 2-7 April 2006.

102. **van der Velde, O.**, **Á. Mika**, S. Soula, C. Haldoupis, T. Neubert, U. Inan. Lightning discharge processes generating carrot and column sprites. European Geosciences Union, General Assembly 2006, Vienna, Austria, 2-7 April 2006.

101. Fullekrug, M., and M.J. Rycroft. Sprites in the global atmospheric electric circuit. European Geosciences Union, General Assembly 2006, Vienna, Austria, 2-7 April 2006.

100. **Ignaccolo, M.**, T. Farges, **Á. Mika,** T. Allin, **O. Chanrion,** E. Blanc, T. Neubert, A. Fraser-Smith, and M. Fullekrug, M. The planetary rate of sprite events. European Geosciences Union, General Assembly 2006, Vienna, Austria, 2-7 April 2006.

99. **Berg, P.**, **E. Arnone**, I. Cnossen, **C.-F. Enell**, N. F. Arnold, B. Christiansen and P. Thejll. Atmospheric response to local ozone perturbations. European Geosciences Union, General Assembly 2006, Vienna, Austria, 2-7 April 2006.

98. **Chanrion, O.**, **C.-F. Enell**, and T. Neubert. Excitation and ionisation of the atmosphere by streamers. European Geosciences Union, General Assembly 2006, Vienna, Austria, 2-7 April 2006.

97. Farges, T, E. Blanc and M. Tanguy. Lightning ionospheric effects during 2003 and 2004 Eurosprite campaigns. European Geosciences Union, General Assembly 2006, Vienna, Austria, 2-7 April 2006.

96. Crosby, N.B. Coupling of Atmospheric Layers – EU FP5 RTN Project: Training and Outreach Programme, European Geosciences Union, General Assembly 2006, Vienna, Austria, 2-7 April 2006.

95. **Chanrion, O.** Particle simulations of sprite ignition. CAL third-year meeting, Cambridge, England, January 9-11 2006.

94. **van der Velde, O.** Characteristics of sprite-generating thunderstorms. CAL third-year meeting, Cambridge, England, January 9-11 2006.

93. **Ignaccolo, M.** Global distribution of sprites. CAL third-year meeting, Cambridge, England, January 9-11 2006.

92. **Odzimek, A.** Sprite perturbation to the atmospheric electric circuit. CAL third-year meeting, Cambridge, England, January 9-11 2006.

91. **Mika, Á.** Ionospheric perturbations above thunderstorms. CAL third-year meeting, Cambridge, England, January 9-11 2006.

90. **Steiner, R.** Broad-band VLF observations in relation with sprites. CAL third-year meeting, Cambridge, England, January 9-11 2006.

89. **Enell, C.-F.** Chemical perturbations from sprites and energetic particle radiation. CAL third-year meeting, Cambridge, England, January 9-11 2006.

88. **Arnone, E.** Radiative effects of chemical perturbations. CAL third-year meeting, Cambridge, England, January 9-11 2006.

87. **Arnone, E.,** and N. Crosby, Education and Outreach. CAL third-year meeting, Cambridge, England, January 9-11 2006.

86. **Arnone, E., and F. Boberg**. The EuroSprite2005 Campaign. CAL third-year meeting, Cambridge, England, January 9-11 2006.

85. **Boberg, F.** Solar influence on atmospheric dynamics. CAL third-year meeting, Cambridge, England, January 9-11 2006.

84. **Berg, P.** Atmospheric dynamics. CAL third-year meeting, Cambridge, England, January 9-11 2006.

83. Seppälä, A., P.T. Verronen, M.A. Clilverd, C.J. Rodger, E. Kyrola, E. Turunen and T. Ulich. The Effects of the January 2005 Solar Events on the Middle Atmosphere. AGU Fall Meeting 2005, San Francisco, 5 - 9 December 2005.

82. **Odzimek, A., E. Arnone, F. Boberg, O. Chanrion**, S. Laursen, T. Neubert, G. Villa, T. Allin, **P. Berg, C-F. Enell, O. van der Velde, Á. Mika, M. Ignaccolo**. EuroSprite 2005 Campaign, MIST Autumn Meeting, London, UK, 25 November 2005.

81. **Arnone, E.**, **O. Chanrion** and N.B. Crosby. Coupling of Atmospheric Layers: EuroSprite2005 Observational Campaign. Belgian Institute for Space Aeronomy, Brussels, Belgium, November 2005.

80. Crosby, N.B., **O. Chanrion** and **E. Arnone**. Coupling of Atmospheric Layers – EU FP5 RTN Project: Training and Outreach Programme. Communicating European Research Conference, Brussels. November 2005.

79. Neubert, T., U. Inan, R. A. Marshall, A. Hughes, A. Collier, E. Blanc, T. Farges, C. Haldoupis, **Á. Mika**, S. Soula, **O. van der Velde**, G. Satori and J. Bor. Co-ordinated observations of sprites. 28th General Assembly of URSI, New-Delhi, India, October 23-29 2005.

78. **Arnone E.**, Arnold N., Dinelli B. M., **P.Berg** and J.J. Remedios. Scales of perturbations in the middle atmosphere: Investigating the relevance of repeated small scale perturbations. DCFI, University of Bologna, September 2005.

77. **Enell, C.-F.,** A. Kero, E. Turunen, T. Ulich, T. Bösinger, P. Verronen and A. Seppälä. Active modification of the negative ion region (AMORE). 12th EISCAT Workshop, Kiruna, Sweden, August 2005.

76. Turunen, E., T. Ulich, **C.-F. Enell**, A. Kero, P. T. Verronen, A. Seppälä, F. Honary. The atmospheric effect of highly relativistic electron events at high latitudes. 12th EISCAT Workshop, Kiruna, Sweden, August 2005.

75. Kero, A., **C.-F. Enell**, T. Ulich, E. Turunen, T. Raita, P. T. Verronen, A. Seppälä, M. Rietveld and F. Honary. Cosmic radio noise absorption modified by the RF heating in the D region. 12th EISCAT Workshop, Kiruna, Sweden, August 2005.

74. **Enell, C.-F.**, P. Verronen, A. Seppälä, E. Turunen, and T. Ulich. Possibility of NOx production by transient luminous events studied in a coupled ion-neutral chemical model. IAMAS2005, Beijing, China, August 2-11 2005.

73. Seppälä, A., P.T. Verronen, E. Kyrola, S. Hassinen, J. Tamminen, and L. Backman. Aurinkomyrskyjen vaikutuksia ilmakehässä - Otsonikato pohjoisella napa-alueella talvella 2003-2004 ("Effects of solar storms in the atmosphere - Ozone loss in the North Polar region in the winter of 2003-2004"). Kymmenes Suomen avaruustutkijoiden kokous (10th national Finnish COSPAR meeting), 2005

72. Verronen, P.T., A. Seppälä, L. Backman, C.J. Rodger, M.A. Clilverd, E. Kyrola, S. Hassinen, A. Hauchecorne, D. Fussen, J.L. Bertaux, **C.-F. Enell**, E. Turunen, and T. Ulich. NO2 and ozone changes in the Northern Hemisphere middle atmosphere due to the October-November 2003 solar proton events. IAGA, Toulouse, France, July 18-29 2005.

71. Clilverd, M.A, A. Seppälä, C. J. Rodger, N.R. Thomson, P.T. Verronen, E. Turunen, T. Ulich, J. Lichtenberger and P. Steinbach. Modelling the ionospheric effects of solar proton events in the polar atmosphere. IAGA, Toulouse, France, July 18-29 2005.

70. Seppälä, A., P.T. Verronen, M. A. Clilverd, C. J. Rodger, E. Turunen, T. Ulich, and **C.-F. Enell.** The high energy proton fluxes of January 2005: Impact on middle atmosphere. IAGA, Toulouse, France, July 18-29 2005.

69. Kero, A., **C.-F. Enell,** T. Ulich, E. Turunen, T. Raita, P.T. Verronen, A. Seppälä, M. Rietveld, and F. Honary. Artificial heating effects on the cosmic HF radio noise absorption. IAGA, Toulouse, France, July 18-29 2005.

68. Haldoupis, C., **Á. Mika**, T. Neubert, U.S. Inan and T.H. Allin. VLF perturbations observed in one-to-one association with sprites. IAGA, Toulouse, France, July 18-29 2005.

67. Farges, T., E. Blanc, A. Le Pichon and P. Herry. Sprite remote sensing using infrasound measurements. IAGA, Toulouse, France, July 18-29 2005.

66. Neubert, T., U. Inan, R. A. Marshall, E. Blanc, T. Farges, C. Haldoupis, **Á. Mika**, S. Soula and **O. van der Velde**. Co-ordinated observations of sprites, IAGA, Toulouse, France, July 18-29 2005.

65. **Arnone, E.**, N. Arnold and B. Dinelli. M.. Scales of perturbations in the middle atmosphere: investigating the relevance of repeated small scale perturbations. CAL Mid-term science meeting, Elounda, June 20-24 Crete, 2005.

64. **Berg, P.**, B. Christiansen and P. Thejll. Ozone perturbations and solar influences on the atmosphere: A CGM study. CAL Mid-term science meeting, Elounda, Crete, June 20-24 2005.

63. Arnold, N., **E. Arnone**, S. England, F. Jing, A. Lyons, **A. Odzimek**, T. Robinson, M. Harris, A. Aylward, A. Dobbin, G. Millward, **P. Berg**, B. Christiansen, P. Thejll anf M. Rycroft. Modelling electric influences on the neutral atmosphere. CAL Mid-term science meeting, Elounda, Crete, June 20-24 2005.

62. Verronen, P. T., A. Seppälä, L. Backman, E. Kyrölä, S. Hassinen, C. J. Rodger, M. A. Clilverd, A. Hauchecorne, J. L. Bertaux, D. Fussen, **C.-F. Enell**, E. Turunen and T. Ulich. Ozone depletion in the Northern Hemisphere middle atmosphere due to the October-November 2003 solar proton events. CAL Mid-term science meeting, Elounda, Crete, June 20-24 2005.

61. **Enell, C.-F.**, E. Turunen, T. Ulich, P. T. Verronen and A. Seppälä. The effect of excited neutral molecular nitrogen estimated in a coupled ion-neutral chemistry model. CAL Mid-term science meeting, Elounda, Crete, June 20-24 2005.

60. Turunen, E., T. Ulich, **C.-F. Enell**, A. Kero, P. T. Verronen and A. Seppälä. Effect of relativistic electron precipitation on neutral atmospheric composition. CAL Mid-term science meeting, Elounda, Crete, June 20-24 2005.

59. **Ignaccolo, M.** Sprite thunder: automated sprite detection with infrasound signature. CAL Mid-term science meeting, Elounda, Crete, June 20-24 2005.

58. Füllekrug, M. Global remote sensing of atmospheric discharges. CAL Mid-term science meeting, Elounda, Crete, June 20-24 2005.

57. Farges, T., E. Blanc, A. Le Pichon, P. Herry, T. Neubert and T. H. Allin. Sprite remote sensing using infrasound measurements. CAL Mid-term science meeting, Elounda, Crete, June 20-24 2005.

56. Bösinger, T. and S. L. Shalimov. Notes on the ultra-slow tail of sprite-associated lightning flashes. CAL Mid-term science meeting, Elounda, Crete, June 20-24 2005.

55. Bösinger, T., S. L. Shalimov, **Á. Mika** and C. Haldoupis. Is there a unique signature in the ULF response to sprite-associated lightning flashes? CAL Mid-term science meeting, Elounda, Crete, June 20-24 2005.

54. Haldoupis C., C. Meek and **Á. Mika**. A search for sprite related VLF signatures in the frequency domain using wavelets. CAL Mid-term science meeting, Elounda, Crete, June 20-24 2005.

53. **Mika, Á.** and C. Haldoupis. A study on VLF perturbations and transient luminous events using the *EuroSprite-2003* observations. CAL Mid-term science meeting, Elounda, Crete, June 20-24 2005.

52. **Odzimek, A.,** Rycroft M. J., Arnold N., The role of sprites and the global atmospheric electric circuit, CAL Mid-term science meeting, Elounda, Crete, June 20-24 2005.

51. Rycroft, M. J. Outstanding problems in our understanding of the global atmospheric electric circuit and its effect on weather and climate. CAL Mid-term science meeting, Elounda, Crete, 2005.

50. **Van der Velde O.**, S. Soula, T. H. Allin, T. Neubert. Sprites in relation to their parent thunderstorm system and lightning activity: Results from the 2003 campaign. CAL Mid-term science meeting, Elounda, Crete, June 20-24 2005.

49. Soula S., **O. van der Velde,** T. H.Allin, T. Neubert, J.Bór and G. Sátori. Analysis of the thunderstorm systems producing sprites: overview of the 2003 campaign. CAL Mid-term science meeting, Elounda, Crete, June 20-24 2005.

48. **Chanrion, O.** and T. Neubert. Simulation of streamer initiation using a particle in cell code with Monte Carlo collisions. Application to sprite ignition. CAL Mid-term science meeting, Elounda, Crete, June 20-24 2005.

47. **Chanrion, O.** and T.Neubert. Simulation of streamer propagation using a PIC-MCC code. Workshop : The multiscale nature of spark precursors and high altitude lightning", Leiden, The Netherland, May 9-13 2005.

46. **Arnone, E.**, N. F. Arnold, J.J. Remedios, B.M. Dinelli and **P.Berg**. Middle atmospheric perturbations: From the solar cycle to sprites. EOS, Space Research Centre, Leicester, UK, May 2005.

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