

Study of cosmic ray influence upon
atmospheric processes

Goal:

Assessment of parameterization of cosmic ray effects upon atmosphere

List of confirmed participants:

ISSI members:

- Dr. Karen L. Aplin (18.09-23.09)
- Prof. Dr. Frank Arnold (18.09-24.09)
- Prof. Galina A. Bazilevskaya (18.09-24.09)
- Prof. R. Giles Harrison (18.09-22.09)
- Dr. Alexei Krivolutsky (18.09-24.09)
- Dr. Irina A. Mironova (18.09-24.09)
- Dr. Eugene Rozanov (19.09-22.09)
- Dr. Ilya G. Usoskin (18.09-24.09)

Young Scientists:

- Dr. Keri Nicoll (18.09-22.09)
- Mr. Julien Gérard Anet (19.09-22.09)

Invited expert:

- Prof. Urs Baltensperger (19.09)
 - Dr. Miikka Dal Maso (22-23.09)
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Useful Information:

Location of Hotel Metropole

Zeughausgasse 26
CH-3011 Bern
Tel. +41 31 329 94 94
Fax +41 31 329 94 95
<http://www.hotelmetropole.ch/EN/index.html>
<http://www.hotelmetropole.ch/EN/html/plan.html>

Location of ISSI

Hallerstrasse 6
CH-3012 Bern
Tel. +41 31 631 48 96
Fax +41 31 631 48 97
<http://www.issibern.ch>
<http://www.issibern.ch/localguide/location.html>

<http://www.issibern.ch/localguide/hotels.html>

Program:

MONDAY 19 September 2011

9:30 Welcome and Introduction

Irina A. Mironova
"Goals of our ISSI project and first results"

10:00 Coffee Break

10:30 Some results of WG4: Modelling group

Alexei Krivolutsky, Tatiana Vyushkova and Maik Wissing
"Longitudinal dependence of chemical response to energetic particles (3D model runs)"

Julien Anet
"Implementation of EPP parameterization into a AOCGCM"

11:30 Discussion

12:00 Lunch

14:00 First results of the CLOUD experiment

Urs Baltensperger
"CLOUD experiment"

15:00 Coffee Break

15:30 Discussion

17:00 Dinner

TUESDAY 20 September 2011

9:30 Some results of WG 1: Electric circuit

Giles Harrison
"Global circuit effect on cloud height"

10:00 Coffee Break

10:15 Some results of WG 3: Energetic particles

Galina Bazilevskaya
"Most probable explanation of discrepancy between the observed and simulated fluxes of charged particles in the near-ground atmosphere"

Ilya G. Usoskin
"Preliminary simulations of upward particle flux near ground"

12:00 Lunch

14:00 Some results of WG 1: Electric circuit and WG 3: Energetic particles

Karen L. Aplin
"Surface-based UK measurements of atmospheric ionisation from cosmic rays and natural radioactivity"

Keri Nicoll
"Measurements of atmospheric ionization"

15:30 Coffee Break

16:00 Some results of WG 4: Modelling group and WG 3: Energetic particles

Alexei Krivolutsky and Irina Mironova
"Solar proton fluxes and PMC (preliminary analysis of data sets)"

Ilya G. Usoskin

"Discussion on modelling atmospheric ionization by SEP/GCR: what model to use"

17:00 Coffee Break

17:30 Discussion format of formal publications

WEDNESDAY 21 September 2011

9:30 Some results of WG 2: Ion-mediated and neutral aerosol

Frank Arnold and Hans Schlager

"Atmospheric Clouds: Climate Change and Potential Cosmic Influences"

10:30 Coffee Break

11:00 Some results of WG 4: Modelling group and WG 2: Ion-mediated and neutral aerosol

Eugene Rozanov

"Influence of GCR, SEP and EEP on atmospheric composition and dynamics"

Irina Mironova

"Upper limit effect of solar energetic particles on polar stratospheric aerosol"

12:00 Lunch

14:00 Discussion format of formal publications and
Start of "Work-Group day"

16:30 Coffee Break

THURSDAY 22 September 2011

9:30 Discussion format of formal publications and
"Work-Group day"

10:00 Coffee Break

10:30 Summary and Plans for future work

12:00 Lunch

14:00 Discussion

15:00 Coffee Break

17:00 Dinner

FRIDAY 23 September 2011

WGs work
