PHYSICS SESSION 1/3

- 3 presentations about SURFEX

  - multi energy balance improves the surface energy balance of the nature tile and hence near surface conditions

  - TEB is performing well in Helsinki.

  - The snow model CROCUS found to perform well in Norway. Precipitation and temperature are the key forcing variables.

- 1 MUSC

  - Strato cumulus transition case

PHYSICS SESSION 2/3

- developments within ARPEGE/ALADIN ALARO AROME

  - Convection and microphysics, SURFEX

  - Entrainment and cloud geometry

  - shallow convection and clouds, surface

- Validation of cloud properties using satellite data

  - Accurate cloud physical properties in models are essential for predicting cloud radiative forcing.

PHYSICS SESSION 3/3

- self organizing stochastic physics by cellular automata.

PHYSICS DISCUSSION 1/3

- Single column model MUSC
  - valuable tool for testing and validating physics schemes
  - inside 3D model
    - should be maintained as a part of the export version
    - phasing to cy37 in July 2011
  - input and output are case specific
  - working week arranged in Helsinki Nov 2011

PHYSICS DISCUSSION 2/3

- SURFEX

  - Well established in the research community

  - More and more used operationally

  - A governance body is formed, that will consider maintenance, priorities for development, operational compatibility...

  - working week arranged in Brussels April 2011 to formulate requirements of the ALADIN consortium

PHYSICS DISCUSSION 3/3

- The use of cloud information in radiation and micro physics schemes
  - inter-comparison of radiation schemes within the frame of HARMONIE under way
  - FP7 EUCLIPSE "radiation case" offers useful data for comparing radiation schemes
- cooperation between physics experts and data assimilation experts on the use of remote sensing data