## Séminaire 23 juin 2011, 10:00 Salle de réunion (1<sup>er</sup> étage), CEN

## Michael Lehning, SLF Davos, Suisse

## **Snow Surface Dynamics at Different Scales**

Résumé:

The alpine snow cover is a fascinating phenomenon with esthetical, economic and ecological implications for all countries that have or depend on snow in mountains. This contribution explores two distinct aspects of the mountain snow cover: first, the hazard aspect of snow is treated with respect to avalanches. It is shown how the stratigraphic information on the layered snow cover can be simulated by a numerical model and subsequently be used to predict regional avalanche danger. In a second part of the presentation, the distribution of solid precipitation in mountains and the resulting snow depth distribution are explored. It is shown how physical and statistical process descriptions at diverse scales complement each other for a better understanding of snow variability and therefore water resources.