UNIVERSITÉ Grenoble Alpes

The Lautaret pass field work week Training on snow & atmosphere science in Master at Université Grenoble Alpes

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A training in the field on snow metamorphism, snow thermal regime, surface energy budget, snow depth distribution, atmospheric ozone, micro-meteorology.

Where : Lautaret Pass, 2000 m.a.s.l, about 1h30 from Grenoble, in a great scenic mountainous place

When: 6 days early March every year.

How : Active pedagogy, learning by doing

FOR WHOM ?

The **Master** of Earth Science and Environment in Grenoble proposes a study path on "Atmosphere, Climate and Terrestrial surface".

The Lautaret field trip is open to about 20 master students (up to a maximum of 24) which includes all our students (13 - 18 depending on the year).

A few seats are open for external / international Master and PhD students (see G. Picard for conditions).

Cryosphere Climate Atmosphere

Snow stratigraphy Surface Energy Budget

Ground Penetrating Radar (GPR), Differential GPS

Atmosphere and Snow optical spectrometry:

Stratigraphy in snowpits (1 day)
Spatial variations of surface temperature and snow temperature profile (1/2 day)
Energy budget (from AWS) and snow albedo (1/2 day)

- Radar stratigraphy of the snow pack
- Radar wave velocity assessment
 Surface DEM of snow surface by differential GPS
 Data processing and GIS

applications

 Snow e-folding depth
 Zenith and direct sun spectral measurements
 Spectral analysis for water vapor and ozone columns retrieval





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