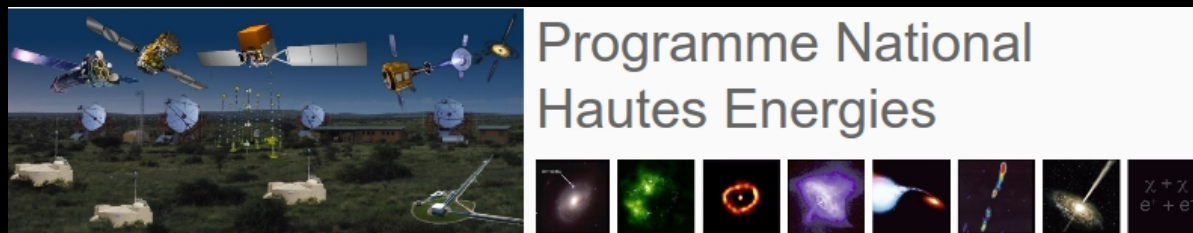


Nuclear physics for Galactic Cosmic Rays in the AMS-02 era

[3-4 December, 2012]

Sponsors

PNHE: <http://pnhe.irap.omp.eu/>



CPTG: <http://lpsc.in2p3.fr/schien/CPTG/cptg.html>



SOC

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LOC

Special thanks to Françoise Petiot, Emmanuelle Vernay, and the LPSC staff

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Goals and format of the workshop

AMS-02 data precision poses new challenges for their analysis/interpretation:
How can we improve on many ingredients that we already know not to be precise enough?

N.B.: no data from AMS-02 will be shown!

Monday morning: review of Galactic Cosmic-Ray (GCR) studies (exp. & pheno.)

- Brief review on GCRs;
- GCR phenomenology studies and fragmentation uncertainties;
- CR flux from various contemporary experiments (CREAM, PAMELA, AMS-01);
- Status report on AMS-02.

Monday afternoon: review on fragmentation (models/measurements/databases/GEANT4)

- Review on meteoritic studies and cross-section measurements;
 - Fragmentation mechanisms;
 - Databases/facilities;
 - Fragmentation codes;
 - Implementation in GEANT4.
-

Tuesday morning [1]: Higher energy 'hadronic' interactions

- anti-protons, anti-deuterons, e^+ , e^- , and γ -rays in GCRs;
- Impact on production uncertainties for data interpretation;
- GEANT4 models;
- NA61/SHINE at CERN SPS

Tuesday morning [2]: GCRs, Solar modulation, and Neutron Monitors (NMs)

- Solar Modulation, GCRs, NMs, and Auger
- European Network of Neutron Monitors
- Neutron production in the atmosphere

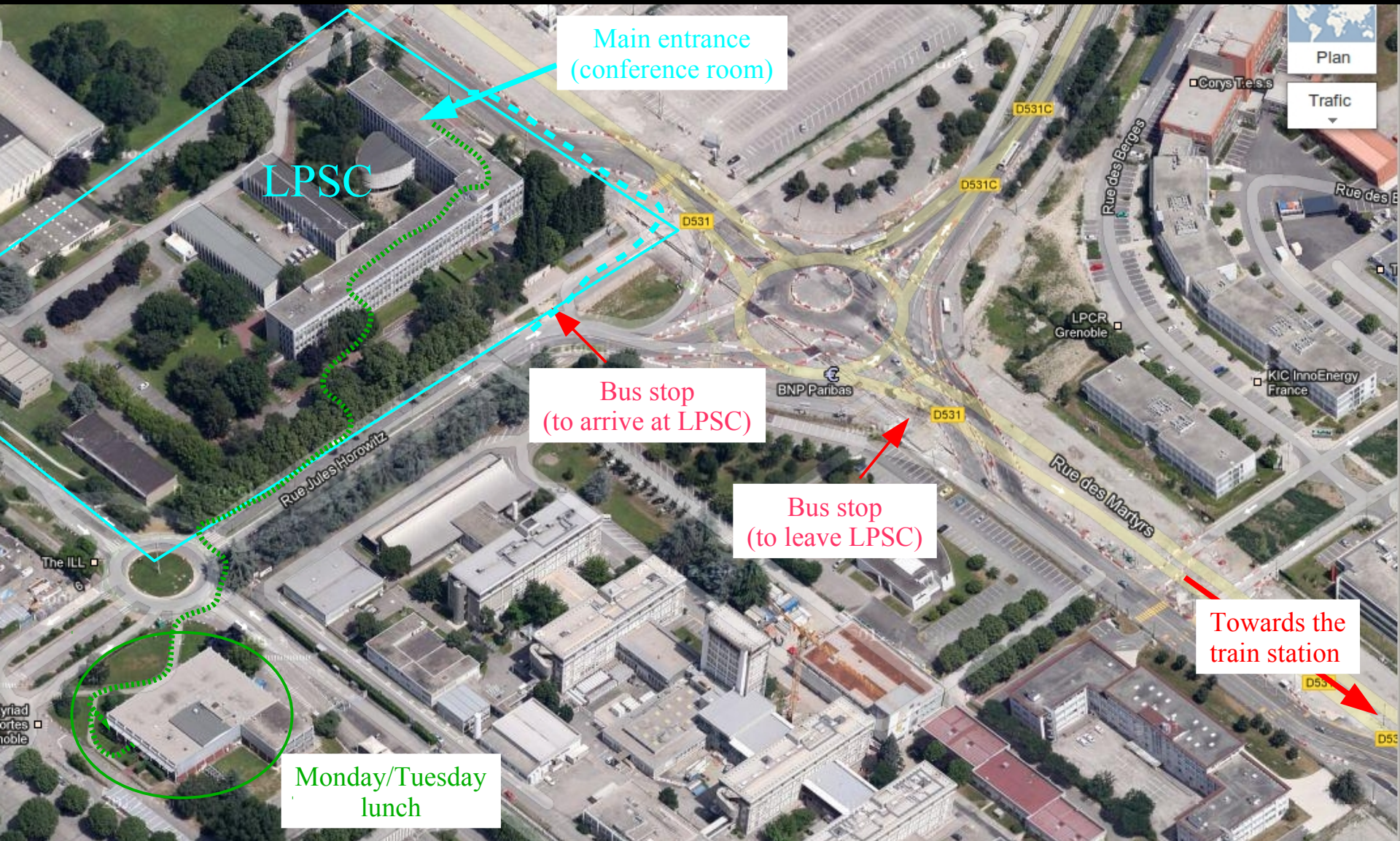
Goals and format of the workshop

This is a workshop:

- Short talks;
- Hopefully enough time for all your questions;
- Discussions encouraged.

→ Hopefully starting point for future collaborations?

Monday and Tuesday Lunch (12h45)



Monday Dinner @ L'escale

- Workshop stops at ~ 6:45 pm
- lab. entrance door closed after 5:30pm
- main gate closes at 7:30pm

Direction: Prémol

Période Bleue: du lundi au vendredi

Château	18 19	18 38	19 00	19 32	20 05
Maladière	18 26	18 44	19 06	19 38	20 11
Polygone Scientifique	18 25	18 33	18 37	18 42	18 51
Gares	18 37	18 45	18 49	18 53	19 02

