

HEP 2011 : 21-27 July 2011 International Europhysics Conference On High Energy Physics Rhône-Alpes - a region of science - invites you !

Annecy : LAPP Lyon : IPNL Grenoble : LPSC, ILL, IN, LAOG

In one of its most active and beautiful cities :

Grenoble



Johann Collot

Grenoble, Annecy and Lyon - Rhône - Alpes

## Rhône-Alpes : second region of France and sixth of EU



~10% of the French population : 6 M inhabitants ~10% of GNP of France : 175 G€ Annual R&D budget : 4.5 G€ Two of the top 10 academic campuses of France : Lyon and Grenoble Home land of major international labs : -CERN -TLL -ESRF -MINATEC -EMBL -IRAM -LSM Fréjus A major partner in the construction of LHC : -special contribution offered to ease the LHC approval and construction -150 RA corporates participated to LHC construction

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### Organization is supported by 6 labs and more than 170 scientists working on HEP subjects

LPSC: 200 employees, 40 HEP scientists ILL: 450 employees, 20 HEP scientists IN: 400 employees, 10 HEP scientists LAOG: 100 employees, 8 HEP scientists LAPP: 200 employees, 50 HEP scientists IPNL: 200 employees, 45 HEP scientists Local Organizing Committee already at work :

- Johann Collot (LPSC) -Lucia di Ciaccio (LAPP) -Houmani El Mamouni (IPNL)
- Henri Godfrin (IN) Gilles Henri (LAOG) Michael Klasen (LPSC)
- Gérard Sajot (LPSC) -Oliver ZImmer (ILL) Johann Collot Grenoble, Annecy and Lyon - Rhône -Alpes





# Involved in more than 25 major HEP Scientific Projects



- Theory :
- High Energy Astrophysics
- Lattice QCD
- High Energy Particle physics

Universe :

- cosmology : PLANCK and SNIFS
- Cosmic Rays : AMS, CREAM, AUGER, CODALEMA, HESS, FERMI
- Dark matter : Edelweiss, ULTIMA, MACHe3
- Gravitational waves : VIRGO

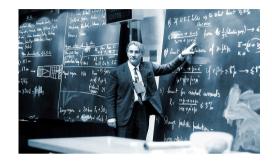
High Energy Particle Physics :

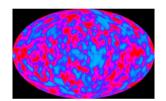
- Colliders : Babar @ SLAC, ATLAS, CMS and LHC, @ LHC, DØ @ FermiLab, ILC
- Fundamental interactions and symmetries : n-EDM @ ILL and PSI , GRANIT @ ILL

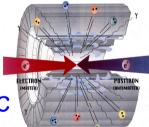
neutron decay @ ILL

- Neutrinos : OPERA, T2K

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Come and feel the beat of our rich historical past,

Discover one of the most scenic, active and touristic regions of Europe and above all,

Open the window to the XXI century vision of our Universe

218 BC : During the Second Punic war, Hannibal crosses the Alps and defeats by surprise the Roman legions



And pays on his way a visit to a small Gallic settlement called Cularo : the initial name of Grenoble !

Almost 2000 years later (1815), Napoleon (an admirer of Hannibal) will also visit us on its way back to Paris after escaping the Elba Island, to start his most disastrous second and short reign.

Come and drive through the Hannibal or the Napoleon Roads .

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The Roman Empire is divided and agonizing (but they don't realize !)

The western Roman Emperor Gratian raises Cularo to the civitas (city) state. In recognition and to honor Gratian, Cularo changes names and becomes Gratianopolis, which by several prononciation alterations will finally become Grenoble !

But Gratian is mostly known to have been the first Roman emperor to impose Christianism as the official state religion !

As a matter of facts in 1989, during excavation works, a Christian baptistery dating from IV century was found under that church

Come, visit and reread the history of Christianity



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23 July 2009

1339 : Creation of the University of Grenoble, 25 years before the Jagiellonian University of Krakow

1349 : Dauphiné (the Grenoble province) joins France – Initially, it was an independent state federated to the Holy Roman Empire of the German Nation. It was subsequently governed by the heir of the throne of France, called the Dauphin of France.

1453 : Louis XI gives Grenoble a parliament. After Paris and Toulouse, this is the third French city to acquire some autonomy.

The parliament building and the old university building (a tower) are still there almost unchanged !

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While Christopher Columbus is reaching America, Charles VIII passes by the "Inaccessible Mount" next to Grenoble, on which – some say – a demon lives. He immediately orders Antoine de Ville and some of his best men to get to the top. It took them a month to reach the summit and some died. This is Known in history as the first recorded alpine climbing expedition.

Come, hike or even climb the Needle Mount as it is called now.



23 July 2009

10 May 1788, Louis XVI abolishes the Parliament of Grenoble.

30 May 1788, he signs letters of cachet to exile the Parliament members.

7 June 1788, the order is executed but the people get to the roofs (not to the streets !) and throw tiles to the army which retreats. Tile Day

14 June 1788, the city Notables assemble and send the King a call for the Assembly of the General States in Paris, which will actually be held a year later .... Come and visit the fountain of the three orders which



commemorates this event

23 July 2009

- 1802 : Joseph Fourier (Fourier Transform ...) appointed prefect of Grenoble where he carried out much of his scientific work. Among many things, he was first to suggest green house effect.
- 1840 : Louis Vicat invents artificial cement (grey gold) and builds first concrete bridge (still visible in Grenoble)
- 1869 : Aristide Bergès invents hydroelectricity
- 1968 : Winter Olympic games
- 1975 : R&D which contributed to invention of Liquid Crystal Displays (patent used by Sharp, Sanyo and Futjisu)
- 1992 : Silicon On Insulator electronics SOITEC

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# Grenoble : a city of Knowledge in the heart of the French Alps



435,400 inhabitants 8<sup>th</sup> metropolis of France





63,000 students of which 49,000 in 4 universities

21,000 scientific jobs

(public : 14,500 , private : 6,500)



200 labs - Second scientific pôle in France

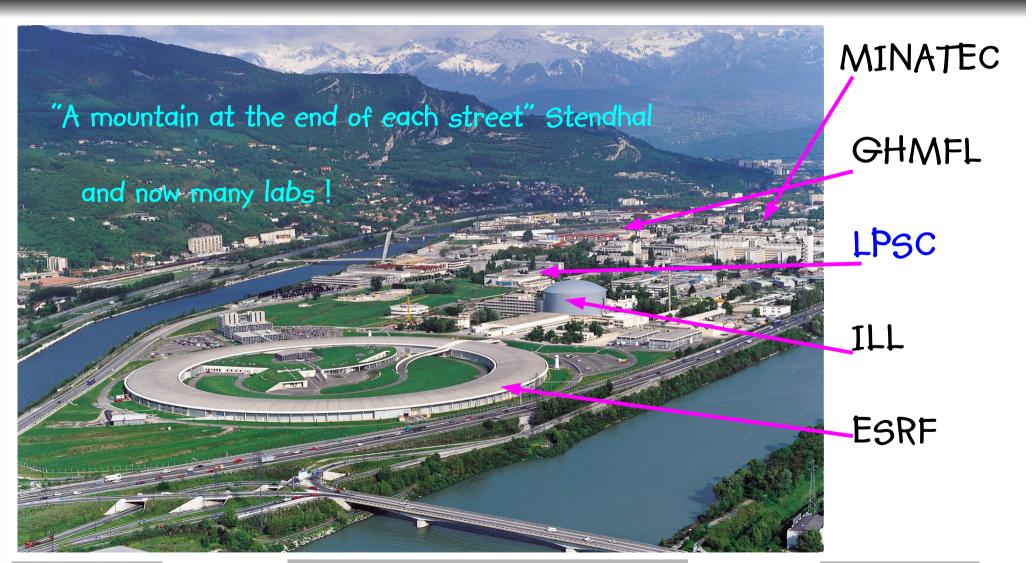


Where the French revolution started : 7 June 1788

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## Science Facilities in Grenoble



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Rudolf Ludwig Mössbauer : ILL director at the end of 70's , who conducted the first neutrino oscillation search on a terrestrial source Louis Néel : Institut Néel , (ILL/Caltech/LPSC/Munich)

antiferromagnetism and ferromagnetism Wolfgang Paul : built first neutron storage rings at ILL .

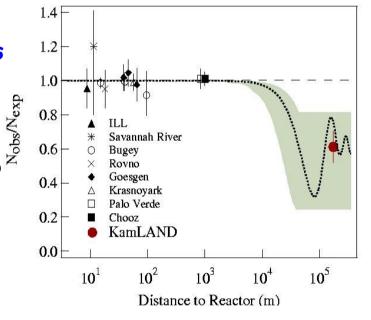
Klaus von Klitzing : Quantum Hall effect discovered at Grenoble High Magnetic Field Lab

Norman Ramsey : conducted neutron EDM experiments at ILL

Albert Fert : Ph.D. thesis and teaching in Grenoble and Orsay Johann Collot Grenoble



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How the LHC started and what ATLAS/CMS/LHCb/ALICE first collision data look like.

The last chance of the Tevatron to exclude or perhaps evidence the Higgs.

If AUGER, FERMI, PAMELA, AMS ... can tell us more about the cosmic ray sources and acceleration processes.

The first CMB high-resolution maps observed by PLANCK.

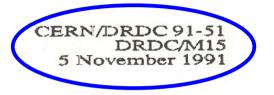
If we emerge out of darkness (DE, DM, SUSY ...)?

If some progress is made in better understanding the nature of neutrinos : Majorana, appearance signal,  $\theta_{13}$ 

And many other wonderful results and perhaps a surprise !

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#### Come and celebrate with us the 20th anniversary of the Grenoble ATLAS group



#### MEMORANDUM

To/A: the Members of the DRDC

From/De: D. Fournier - RD3

Subject/ New Collaborating Institutes Objet

The following groups have expressed their intention to join the RD3 activity:

J. Collot, D. Dzahini and J. Pouxe Institut des Sciences Nucléaires, Grenoble, France

A. Astbury, G. Gaidos, R. Keeler, M. Lefebvre and S. Towers University of Victoria, Canada

The intention of the Grenoble group is to start working on micro-electronic developments for a preshower and on radiation damage, while the Victoria group will concentrate on simulations and cryogenic studies.

The above mentioned groups have requested financial support from their national funding agencies for 1992.

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Rhône-Alpes, Annecy, Grenoble, Lyon expect you all in Grenoble in 2011 In a land of many cultural, natural and gastronomical wonders!



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