



# Winter School on Physics with Trapped Charged Particles

Les Houches, France, January 19-30, 2015

## Lectures and Tutorial Sessions Covering

Physics of confinement  
Dynamics in Penning and Paul traps  
Diagnostic techniques  
Physics of non-neutral plasmas  
Trapped highly charged and radioactive ions  
Space charge effects and Coulomb crystals  
Charged particle beams  
Quantum information processing in traps  
Quantum simulation in traps  
Lasercooling and other cooling techniques  
Applications for fundamental tests, spectroscopy and clocks  
Novel trap designs

## Confirmed speakers :

Christian Roos (University of Innsbruck)  
Dan Dubin (UC San Diego)  
Daniel Segal (Imperial College London)  
François Anderegg (UC San Diego)  
Jeffrey S. Hangst (Aarhus University)  
Joel Fajans (UC Berkeley)  
Klaus Blaum (MPIK Heidelberg)  
Martina Knoop (Aix-Marseille University)  
Michael Drewsen (Aarhus University)  
Niels Madsen (Swansea University)  
Piet O. Schmidt (PTB)  
Richard Thompson (Imperial College London)  
Roland Wester (University of Innsbruck)  
Stefan Ulmer (RIKEN)  
Thomas Sunn Pedersen (Max-Planck Institute of Plasma Physics)

## Organising Committee :

Prof. Niels Madsen (Swansea University) (chair)  
Dr. Martina Knoop (Aix-Marseille University)  
Prof. Richard Thompson (Imperial College London)

## Advisory Committee :

Prof. Klaus Blaum (MPI Heidelberg)  
Prof. Michael Drewsen (Aarhus University)  
Prof. Joel Fajans (UC Berkeley)  
Prof. Piet O. Schmidt (PTB)

*Les Houches is a village located in Chamonix valley, in the French Alps. Established in 1951, the Physics School is situated at 1150 m above sea level in natural surroundings, with breathtaking views on the Mont-Blanc mountain range. Les Houches Physics School is affiliated with Université Joseph Fourier Grenoble I (UJF). The school is a joint interuniversity facility of UJF and Grenoble-INP, and is supported by the UJF, the Centre National de la Recherche Scientifique (CNRS) and the Direction des Sciences de la Matière du Commissariat à l'Energie Atomique (CEA/DSM). Ecole de Physique des Houches, Côte des Chavants, F-74310 Les Houches, France. <http://houches.ujf-grenoble.fr>*

