Strasbourg, France

July 1-7, 2012

European Summer Campus

Physics at the Nanoscale

Mebarek Alouani and Dietmar Weinmann (IPCMS, Strasbourg) From atoms to solids to nanostructures'

Jean-Louis Gallani (IPCMS, Strasbourg) "Chemistry at the nanoscale"

nomas Ebbesen (1818, Strasbourg) ht, Metal and Mo

Wulf Wulfhekel (Karisruhe Institute of Technology) "Manipulating the spin of single molecules"

Peter Schmitteckert (Karisruhe Institute of Technology). Electronic transport through correlated nan ostructures

Gert-Ludwig ingold (University of Augsburg) "Casimir effects in micro and nanostructures

Renaud Leturcq (IEMN, LIIe) "Coupling of electronic and mechanical degrees of freedom"

Wolfgang Weber (IPCM8, Strasbourg) 'Magnetism in ultrathin films''

Véronique Pierron-Bohnes (IPCMS, Strasbourg) "Electron holography on Magnetic nanoparticles"

Stephane Barclaud (IPCMS, Strasbourg) "Low dimensional carbon materials: graphene and carbon nanotubes"

Klaus Richter (University of Regensburg) "Transport in Graphene"

Bertrand Reulet (University of Sherbrooke) "Noise in mesoscopic systems"

Stefan Haacke (IPCMS, Strasbourg) "Biophysics with nanoprobes"

Anne Braun (INERIS, Vemeull-en-Halatte)

For Students in Physics having completed 3 years of university studies

> Secretariat: UFR Physique et Ingénierie 3-5 rue de l'Université F-67084 Strasbourg Cedex France

Anne Braun (INERIS, Vermeult-en-Halatte) "Toxicity and risks to human health of nanomaterials" http://esc.u-strasbg.fr

A Summer Campus What is it?

- European Summer Universities were proposed by the French Minister of Education in 2000 to encourage the mobility of students within Europe. In spring 2009 the name of the programme changed to "Campus Européen d'Été" or "European Summer Campus".
- The 11th European Summer Campus on Physics at the Nanoscale is organised by the physics faculty of the University of Strasbourg (UdS), Centre for Functional Nanostructures of the Karlsruhe Institute of Technology (KIT) supported by several Institutes of the CNRS (IPCMS, ISIS and IPHC).
- It is financed by the Minister for education and research, the German French University (UFA), the University of Strasbourg and the region of Alsace and the city of Strasbourg. The goal of the Summer Campus is twofold:
- First we have a scientific programme explaining to you some of the exciting and very recent developments at the Nanoscale and their applications.
- Second we would like to stimulate discussions between you, the other students, but also, very important, with the lecturers and the other researchers, who you will meet during this week.
- We also have foreseen several excursions to give you the opportunity to learn about Europe, Strasbourg and Alsace.

Ulrich Goerlach

Eric Westhof, Vice-president for Research

Abdel-Mjid Nourreddine, Director of the UFR Physique et Ingénierie

Rodolfo Jalabert

Head of the Master programme in Physics



- Conference Secretariat, Monique Dell
- Programme and Organizing Committee
 - Mebarek Alouani, Rodolfo Jalabert, Stefan Haacke and Ulrich Goerlach,
 - Wulf Wulfhekel, KIT- CFN

Technical Support

- N. Busser (WWW), O. Hunzinger (PCs, WIFI)
- N. Rudolf and Ch. Helfer (vidéo recording)
- P. Gilbert, (Finance, papers)
- S. Prohaska (Preparation of bags)
- Many others (coffees etc.)

Scientific Programme

- Sessions of (2x45+15min) lectures
- Visit to the Institute of physics at the KIT
- PLEASE DO ASK QUESTIONS!!!

Don't be afraid to speak incorrect English You are coming from 14 different countries with 20 different nationalities

Cultural and Social Programme

- Important part of the European Summer Campus
- Learn about Europe, the European Union and other countries (from the other students)
- Learn about Alsace
- Use the (little) free time to explore Strasbourg