XXII International Summer School Nicolás Cabrera - 2015

New Directions in Spintronics and Nanomagnetism


When: 11-16 July, 2015.
Where: Residencia La Cristalera, Miraflores de la Sierra, Madrid, Spain.
Conference Announcement Poster: Click Here
Scientific Program: Click Here
Organizers

Farkhad Aliev – *Universidad Autónoma de Madrid, Instituto Nicolás Cabrera.*
Juan José Palacios – *Universidad Autónoma de Madrid, Instituto Nicolás Cabrera.*
Julio Camarero – *Universidad Autónoma de Madrid, Instituto Nicolás Cabrera, Instituto Madrileño de Estudios Avanzados.*

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Admission & Registration
Please visit the Instituto Nicolás Cabrera website. [URL]
School Scopes and Goals

Spin, charge and heat transport in nanostructures have recently attracted a considerable interest due to their potential for nonvolatile magnetic random-access memories, sensors and novel ways to generate electric current or changes in magnetic states using locally directed heat flow.
Besides, magnetic nanoparticles for biomedical applications have also become a central issue of nanomagnetism. Finally, fundamental aspects of non-equilibrium combined spin, charge and heat transport in magnetic and nonmagnetic devices are one of the central issues on the current research.
The goal of the INC 2015 School is to introduce the early stage researchers on Master, Doctorate and Posdoc level both from Spanish, European / non EU institutions in new directions in spintronics and nanomagnetism, a quickly developing field of the research with both fundamental and applied interest and potential.
School Topics

Nanofabrication

- Organic and Graphene based spintronics
- Molecular magnetism
- Magnetization dynamics, spin torque and magnonics, skyrmions
- Applications of nanomagnetism in medicine
- Magnetocalorics and energy harvesting at the nanoscale
- Alternative ways to control magnetism
- Magnetism in topological insulators
- Atomic scale magnetism

List of Speakers

| Speaker | Affiliation |
|---|---|
| Jagadeesh Moodera | MIT, Boston, USA |
| Shinji Yuasa | Spintronics Research Center, AIST, Tsukuba, Japan |
| Berend Jonker | Naval Reseach Laboratory, Washington, DC, USA |
| Javier Tejada | Universidad de Barcelona, Spain |
| Minn-Tsong Lin | National Taiwan University, Taipei, Taiwan |
| Julie Grollier | Unité Mixte de Physique CNRS/Thales, Paris, France |
| Roland Wiesendanger | University of Hamburg, Germany |
| Stephen Russek | National Institute of Standards and Technology, Boulder, USA |
| Yaroslav Tserkovnyak | UC Los Angeles, USA |
| Sergio Valenzuela | Institut Català de Nanociència i Nanotecnologia, Barcelona, Spain |
| Johan Åkerman | University of Gothenburg, Sweden |
| Jose Maria de Teresa | Instituto de Ciencia de Materiales de Aragón, Zaragoza, Spain |
| Eugenio Coronado | Universidad de Valencia, Valencia, Spain |
| Joaquin Fernandez Rossier | International Iberian Nanotechnology Laboratory, Braga, Portugal |
| Wolfgang Kuch | Freie Universität Berlin, Germany |
| Jan Vogel | Louis Néel Laboratory, CNRS, Grenoble, France |
| Vincent Cros | Unité Mixte de Physique CNRS/Thales, Paris, France |
| Rodolfo Miranda | IMDEA Nanoscience, Madrid, Spain |
| Ursula Ebels | SPINTEC Grenoble, France |