

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.*

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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 Research 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
