

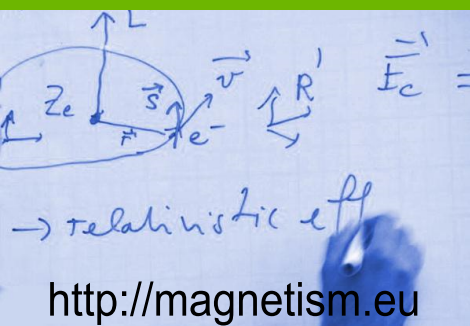


Aug 24 - Sep 4 [2015]  
Cluj-Napoca  
Romania

# THE EUROPEAN SCHOOL ON MAGNETISM

## 2015

FROM BASIC MAGNETIC CONCEPTS  
TO SPIN CURRENTS



Scope

### Organizing committee

Laurent VILA (chair), Grenoble  
Olivier FRUCHART, Grenoble  
Olivier ISNARD, Grenoble  
Claudine LACROIX, Grenoble  
Viorel POP, Cluj-Napoca  
Aurel POP, Cluj-Napoca  
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S. VALENZUELA, Barcelona  
L. VILA, Grenoble  
W. WULFHEKEL, Karlsruhe

The European School on Magnetism (ESM) is a joint action of the European magnetism community, and is organized in cooperation with the JEMS conference (Joint European Magnetic Symposia). ESM aims at providing young scientists with a thorough up-to-date insight into the fundamentals of magnetism.

As with previous sessions of ESM, the 2015 School is based on a broad range of lectures, with special attention given to a specific topic. The topic selected for 2015, from basic concepts to spin currents, covers a wide range of phenomena with an emphasis on spintronics. Both fundamental issues of condensed matter physics and materials science will be covered, as well as addressing applications.

### Topics

- Basic concepts
- Magnetism in matter
- Temperature effects
- Magnetization processes
- Fundamentals of transport
- General tools: synthesis, nanofabrication, characterization, ab initio calculations
- Spin-orbit effects
- Interaction with various stimuli  
Electric fields, light, magnonics
- Industry perspectives

### Means of learning

Promoting a close interaction between lecturers and attendees is a crucial aspect of ESM. To achieve this, the programme will alternate between lectures, question sessions, analytical and numerical practicals, debates, access to a library dedicated to magnetism, and poster sessions dedicated to the attendees' activities. The School is held in a warm atmosphere with many social activities.

### Lecturers

A. Barthelemy (fr), G. Bauer (jp), S. Blundell (uk), M. Chshiev (fr), M. Coey (ie),  
D. Gründler (de), L. Heyderman (ch), T. Jungwirth (uk,cz), A. Kirilyuk (nl),  
C. Lacroix (fr), L. Nistor (fr), J. Paul (de), M. Richter (de), U. Rössler (de),  
C. Tiusan (ro), S. Valenzuela (es), L. Vila (fr)

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MAGNETICS COMMUNITY

