## RCMS · IGER · GTR Seminar

## "The power of neutron scattering techniques in molecular magnetism studies"

Lecturer : Prof. Javier Campo (Materials Science Institute of Aragon) Date : Tue. 22<sup>nd</sup> Jan. 11:00 ~ Place: SA321 (Science & Agricultural Building)

Neutron scattering techniques can provide fundamental insight into the different magnetic behaviors shown by molecule based magnets. In a short introduction the properties of the neutron–matter interactions (strong and magnetic dipolar) and the fundamentals of neutron scattering will be presented in order to facilitate an understanding of the peculiarities of this probe in materials science and in particular in molecular magnetism. Also, the different available procedures to produce neutrons for research, reactors and spallation sources, will be explained. Selected examples will be presented of the use of different neutron scattering techniques on very different molecular magnetic materials; S-based organic magnets, Single molecule magnets, Chiral magnets, Spin-crossover magnets, Spin-waves in Heisenberg Antiferromagnets and Multiferroic Molecular Compounds.



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