



MMQ01: Quantum magnetism, from low dimensional systems to frustrated magnetism.

Organizers: Elsa Lhotel (Institut Néel), Sylvain Petit (Laboratoire Léon Brillouin)

Invited Speakers: Peter Holdsworth (ENS Lyon), Quentin Faure (Laboratoire Léon Brillouin)

Content:

In recent years, the field of quantum magnetism has contributed significantly to the emergence of new concepts and the discovery of new states of matter with exotic properties, spin liquids, massively entangled states, topological and fractional excitations to cite only a few. In addition, this field has recently undergone significant expansion thanks to the synthesis of numerous frustrated compounds (triangular, kagome, pyrochlore, hyper-kagome ...), the in-depth study of spin-orbit interaction, and the development of modern numerical techniques, notably using tensor networks. Understanding all these new phases requires cutting-edge experimental and theoretical techniques. The aim of this mini-colloquium is to bring together experimentalists, theorists, and solid-state chemists, to present and discuss recent advances.

