

# IN<sup>2</sup>UB INTERNATIONAL RESEARCH SEMINARS

## Molecular engineering of redox-active nanomagnets: how to promote large magnetic interactions and spin delocalization

After a general presentation of the different research areas studied by the Molecular Materials & Magnetism team of the Centre de Recherche Paul Pascal – CNRS & Univ. Bordeaux (*i.e. macroconjugated polyaromatic molecules, magnetic liquid crystals, photo- or thermo-switchable complexes and device, high TB or Tc molecule-based (nano)magnets*), the second part of the talk will be focused on how magnetic spins of unpaired electrons interact, in other words how to promote large magnetic interactions. This fundamental problem, at the basis of any rational design of molecule-based magnets, is intrinsically linked to the question of the relative localization (or delocalization) of the unpaired electrons. Through the experimental study of a series of prototype dinuclear complexes, we will see: i) what are the factors which govern the strength and sign of the magnetic exchange through an aromatic bridging ligand, and ii) how a suitable choice of the molecular components can promote high electronic and spin delocalization, a prerequisite for the rational design of strongly coupled molecular systems and high TC molecule-based magnets.

The IN<sup>2</sup>UB invites you to the seminar by

**Dr. Pierre Dechambenoit**

University of Bordeaux, CNRS, Centre  
de Recherche Paul Pascal, France

**SAVE THE DATE**

**January 20<sup>th</sup>, 2022 at 12.00h.**



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