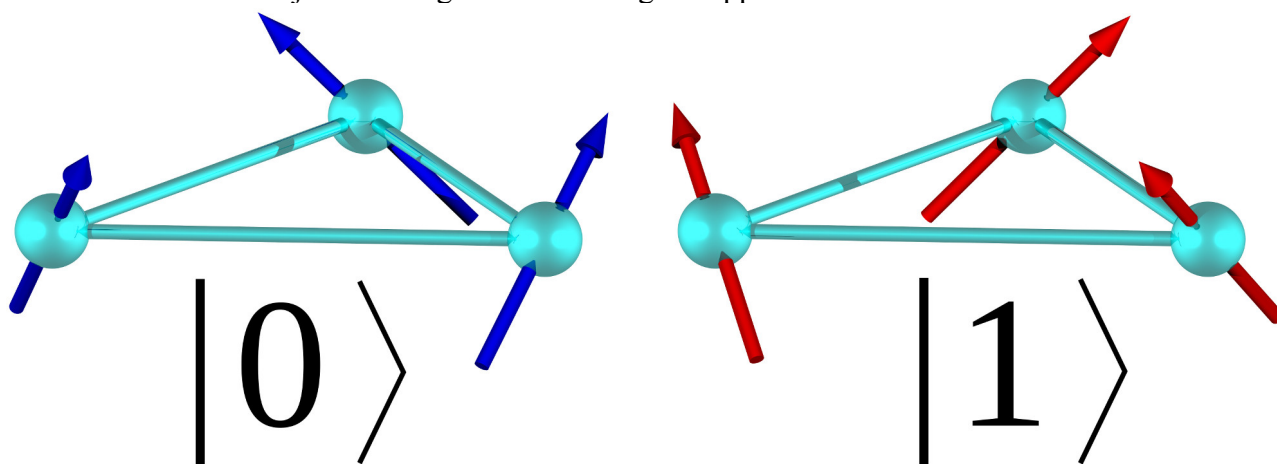


## OPENING OF M2 INTERNSHIP

### POMAM GROUP, INSTITUT DE CHIMIE, UNIVERSITY OF STRASBOURG, FRANCE

Molecular Nanomagnets (MNMs) are a developing class of magnetic materials that combine the advantages of chemical synthesis with the appearance of novel and technologically important magnetic properties. The CHIRALQUBIT MSCA H2020 project (<http://chiralqubit.eu>), carried out at the POMAM lab (Propriétés Optique et Magnétiques des Architectures Moléculaires) aims to propose MNMs as candidates for qubits, i.e. the basic elements of Quantum Information Processing. As we have recently shown, these magnetic materials can be electrically controlled,<sup>1</sup> which constitutes a major advantage for technological applications.



Modification of MNMs to liquid forms which retain the magnetic properties of the solid materials is of particular importance for their deployment in devices. We have previously shown that MNMs can be modified to form Ionic Liquids<sup>2</sup> and are currently in further development of this chemistry.

The intern will undertake the synthesis of **Magnetic Ionic Liquids of d- and f-element coordination complexes** that can function as liquids MNMs. The candidate should be a synthetic Chemist with experience in coordination chemistry, currently involved/registered in a Master's degree (2<sup>nd</sup> year/M2).

Candidates should send queries and CVs to Dr Athanassios K. Boudalis ([bountalis@unistra.fr](mailto:bountalis@unistra.fr)).

#### References

1. Boudalis et al., *First Demonstration of Magnetolectric Coupling in a Polynuclear Molecular Nanomagnet: Single-Crystal EPR Studies of  $[Fe_3O(O_2CPh)_6(Py)_3](ClO_4)\cdot py$  under Static Electric Fields*. *Chem. - Eur. J.* **2018**, DOI: 10.1002/chem.201803038.
2. Boudalis et al., *Towards Ionic Liquids with Tailored Magnetic Properties: Bmim<sup>+</sup> Salts of Ferro- and Antiferromagnetic  $Cu^{II}_3$  Triangles*. *Dalton Trans* **2017**, 46 (36), 12263–12273.