

- Information and registration online on: <u>www.labex-arcane.fr/en/content/inspecthe</u>
- Contact: inspecthe@univ-grenoble-alpes.fr

# Registration fees: PhD People from CNRS People outside CNRS 650 € Industries 1000 €

These fees include course, accomodation in twin rooms (single room available with additional fee) and full board from Sunday, November 25 at dinner to Friday, November 30 at lunch.

Registration deadline: October 15, 2018

### **Location** :

Escandille Village Vacances Autrans, Vercors, France



CNRS thematic school



November 25 to 30, 2018

# Autrans (Vercors - Isère) Escandille residence



SPECTROSCOPIES & THEORETICAL CHEMISTRY



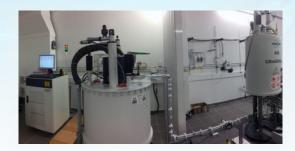


Spectacular instrumental advances in spectroscopies within the last years have allowed the advent of cutting-edge techniques, which have considerably widened possibilities and applications of these characterization techniques.

Spectroscopic techniques combined with theoretical calculations are particularly well suited for the study of transition metal complexes. These often complementary approaches allow one to determine structural, electronic or redox properties of the studied complexes as well as to investigate their reactivity (characterization of intermediates).

The objective of this School is to train young researchers in these techniques and in calculation methods related to spectroscopic and reactivity problems, as well as to improve the knowledge of experienced researchers on the state-of-the-art in these fields.

The official language of the School will be English. Two poster sessions are also planned.





### Spectroscopies

- DNP (Dynamic Nuclear Polarization)
- NMR
- EPR
- Mössbauer
- Optical spectroscopies (UV-Vis, Fluorescence)
- X-ray absorption and emission spectroscopies
- > Theoretical calculations
  - Ligand-field theory
  - Introduction to theoretical calculations
  - Introduction to TD-DFT
  - Calculations of spectroscopic parameters

# Reactivity modelling



- > Teaching content
- 5 half-days of course
- 3 half-days of pratical works in sites at Grenoble, among 7 possible choices
- Flash presentations and posters sessions, exchanges with speakers
- Possibility of visiting one of the international facilities on Friday afternoon (Synchrotron, highfield NMR,...)

## > Public concerned

- PhD
- Engineers
- Post-doc, researchers, university lecturer and researcher
- Industries
- > Pre-requisites

Master's degree in molecular chemistry or in physics-chemistry

# Accomodation



Escandille Residence will welcome you at the heart of Vercors Natural Park.

The venue, pleasant and relaxing, is the right place for exchanges.

During the free afternoon, you can enjoy the wellness area or the snowy landscapes from the mountains around.







