

Preliminary announcement



## ThUL ACTINET School 2007

### Theoretical methods and experimental techniques for the investigation of solid actinides compounds

#### Location and date :

The school will be held from November 12 to 17, 2007 at the Centre d'Etudes de Cadarache (40 km from Aix-en-Provence, south of France)

#### Scope:

The main objective of the Theoretical User Lab (ThUL) within ACTINET is to promote the interaction between theory and experiment and mutual understanding of experimentalists and theoreticians. The ThUL organises schools open to a limited number of experimentalists and theoreticians working in the field of actinide physics. The 2007 school will focus on solid state physics, and will provide a general introduction to computational methods at the atomic scale, as well as present specific approximations relevant for the study of the properties of solid actinide compounds, such as relativistic effects, strong electronic correlations, and magnetism. The basics of various experimental methods (X-ray spectroscopies, measurement of thermodynamical data) will also be covered.

The School will mainly consist of lectures on theoretical methods and experimental techniques. In addition, practical computer sessions and discussions of case studies directed by the lecturers should help the participants to improve their understanding of modelling approaches.

#### Program of the school

- DFT, pseudopotentials, beyond LDA (SIC, LDA+U)
- Classical molecular dynamics and empirical potentials
- Magnetism in actinides compounds
- X-ray spectroscopies (absorption, photoemission)
- Thermodynamics

#### Target audience

This school is a training course designed for experimentalists and theoreticians who are interested both in the modelling of actinide compounds and their physical properties, and in their experimental characterisation. The number of participants will be limited to 24 to enable interaction between lecturers and participants and between participants, as well as facilitate practical sessions. This school is first addressed to graduate students and young researchers, but more senior researchers interested in actinide physics are also welcome.

#### Organizers

The school is organized by the CEA Cadarache and CEA Bruyères-le-Châtel together with the ThUL task group.

Dr. Marjorie Bertolus (CEA, Cadarache)

Dr. Bernard Amadon (CEA, Bruyères le Châtel), Dr. François Jollet (CEA, Bruyères le Châtel)

Dr. Bernd Schimmelpfennig (INE-FZK Karlsruhe, Germany)

A web site is in preparation.

Pre-registration can be sent to [marjorie.bertolus@cea.fr](mailto:marjorie.bertolus@cea.fr) or [bernard.amadon@cea.fr](mailto:bernard.amadon@cea.fr) with a short C.V.