

Proposal for a Psi-K/CECAM joint workshop on “**Modern Theoretical Approaches to Molecule-based Magnetism**”

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Scientific contents:

Bring together the main leaders on the field of theoretical calculations of the magnetic interactions in molecule-based solids, to review the main achievements, problems and perspectives in the field. These experts will be complemented by some selected well-known leaders from the experimental world, to propose new problems and systems to study.

Proposed list of major speakers (some of them, already contacted):

J. P. Malrieu (Fra)  
M. Verdaguer (Fra)  
D. Gatteschi (Ita)  
K. Pierrot (Ned)  
F. Illas (Spa)  
R. Broer (Ned)  
R. Caballol (or/and C. van der Graf) (Spa)  
E. Ceulemans (Bel)  
E. Ruiz (Spa)  
E. Coronado (Spa)  
M. Perderson (USA)  
J. Miller (USA)  
F. Bencini (Ita)  
S. Decurtins (Swi)  
E. Muesca (Fra)  
One more speaker to be determined

We plan to have two sessions, 8 speakers per day, plus two tutorials that could take place on a third day.

Participants:

40-50, from the theoretical field (programmers, people doing simulation), related experimentalist, and young scientists (at least 20 of them).

Format:

The exchange will be done by means of 40 minutes talks and round-tables, complemented by posters sessions, where the young scientist could present their work. There will be also a tutorial session on problem-solving and another on cooperative theoretical+experimental joint efforts.

We are also considering the possible edition of a specific book with the contents of the lectures, which would serve as a review of the state-of-the-art on the subject, if many participants agree on that possibility.

Given the structure and the association to the MOLMAT Congress, we expect that the workshop will have a lot of visibility and also attract researchers from the experimental+theoretical fields.

**Dates:**

Two or three days (depending on the funding), in a morning and afternoon session. The perfect timing would be week after or before the MOLMAT Congress takes place in Lyon, in a time still to be determined, during May-June 2006. This is an international conference that will bring many people working on Molecular Materials to Lyon. Some of them would participate in our meeting (some of them have already agreed upon doing so, if our meeting takes place).

**Budget:**

The minimum budget for a meeting of two full working days in Lyon (three nights), plus travel expenses for 15 speakers would be:

16 speakers + 2 directors \* 3 days (100 euro/day) + 300 euro/trip = 10800 euros

We will need 1200 euros more to cover the travel expenses of the USA speakers. We can pay the speakers 300 euros to cover their living expenses in Lyon (breakfast+lunch+dinner), thus increasing the cost in 5400 euros. Therefore, our request is for 17400 euros, which we expect to get half by CECAM and half by Psi-k.

**Other organizations involved in providing support:**

We plan to submit our proposal to CECAM during September.

**Place:**

The workshop is expected to take place in Lyon, in the CECAM facilities.

**USA participants:**

At this moment we have plans to invite two USA speakers.

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