Max-Planck-Institut für Physik komplexer Systeme, Dresden, Germany

International Workshop on

Local Correlation Methods: From Molecules to Crystals

September 12 - 15, 2007

Scientific coordination:

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To provide reliable quantitative theoretical predictions on material properties, the inclusion of electron correlation is crucial. Many ab initio methods have been developed in the past, density-based and wavefunction-based, but most of them are not fully able to describe electron correlations in extended systems in a rigorous and controllable way. Up to now, solid state sciences are dominated by density-functional methods, but in the near future wavefunction-based methods may become an important alternative. Thereby, electron correlation methods based on localized orbitals (Wannier functions) offer an attractive route to treat electron correlation effects efficiently.
The focus of the workshop is to bring together the individual groups which are active in this new field, to exchange ideas and to learn from each other. In addition to the invited talks, a substantial part of the workshop is reserved for contributed talks. Time will be provided for a poster session and individual discussions of the participants.

Invited speakers:

Alexander Auer (Chemnitz)
Rodney J. Bartlett (Gainesville)
Stefano Evangelisti (Toulouse)
Nicola Gaston (Dresden)
Martin P. Head-Gordon (Berkeley)
Kazuo Kitaura (Tsukuba)
Frederick R. Manby (Bristol)
Lorenzo Maschio (Torino)
Gustavo E. Scuseria (Houston)
Volker Staemmler (Bochum)
Hermann Stoll (Stuttgart)
Denis Usvyat (Regensburg)

Applications for participation and poster contributions are welcome and should be made by using the application form on the workshop web page (please see URL below). The number of attendees is limited. The **registration fee** for the workshop is **100 €** and should be paid by all participants. Costs for accommodation and meals will be covered by the Max Planck Institute. Limited funding is available to partially cover travel expenses. Please note that childcare is available upon request.

Deadline for registration is June 15, 2007.

For further information please contact:
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