



Special Issue on Electron Correlation Effects

Call for Papers

The concept of **Electron Correlation** is fundamental to condensed matter physics, playing an important role in systems including high temperature superconductors, heavy fermions. The term “electron correlation energy” is usually defined as the difference between the exact nonrelativistic energy of the system and the Hartree-Fock (HF) energy. Electron correlation is critical for the accurate and quantitative evaluation of molecular energies. Electron correlation effects are clearly not directly observable. Correlation is not a perturbation that can be turned on or off to have any physical consequences. Rather, it is a measure of the errors that are inherent in HF theory or orbital models.

In this special issue, we invite front-line researchers and authors to submit original research and review articles that exploring **electron correlation effects**. Potential topics include, but are not limited to:

- Electron correlation effects
- Hartree-Fock (HF) energy
- Electron correlation energy
- Configuration interaction
- Molecular energies
- Orbital models

Authors should read over the journal's [Authors' Guidelines](#) carefully before submission. Prospective authors should submit an electronic copy of their complete manuscript through the journal's [Paper Submission System](#).

Please kindly notice that the “**Special Issue**” under your manuscript title is supposed to be specified and the research field “**Special Issue - Electron Correlation Effects**” should be chosen during your submission.

According to the following timetable:

Submission Deadline	February 6th, 2014
Publication Date	April 2014

Guest Editor:



Scientific Research
Open Access

Journal of Modern Physics

ISSN: 2153-120X

For further questions or inquiries
Please contact Editorial Assistant at
jmp@scirp.org