

#### Regional Workshop on

# Computational Condensed Matter Physics



15 - 25 April 2002, Isfahan, Iran

Organized by: Isfahan University of Technology (IUT)
Sponsored by:

International Scientific Meeting Office (ISMO)
Abdus Salam International Center for Theoretical Physics (ICTP)

The Regional Workshop on Computational Condensed Matter is hosted by Isfahan University of Technology (IUT). This workshop covers density functional theory (DFT), its new developments and applications. It will be organized in two parts:

Part I will cover a general introduction into DFT and its applications. We will focus on the linearized augmented plane wave (LAPW) method and provide tutorial sessions and hands-on exercises using the WIEN2k code.

Part II (3-4 days) will be devoted to the cutting edge in this field.

Scientists from all over the world specially from neighboring countries are most welcome to attend. The requirements to participate will be a basic background in quantum mechanics and solid state physics and it would be helpful to have some experience with the Unix (Linux) operating system.

The working language of the workshop will be English.

### **Topics**

Density functional theory for ground and excited states.

New developments in exchange correlation functionals.

The computational methods to study electronic, structural and dynamical properties of solids.

Pseudopotential and all electron methods.

Application to and prediction of novel materials and devices.

Molecular dynamics simulation.

### **International Advisory Committee**

P. Blaha, Austria

K. Schwarz, Austria

N. Nafari, Iran

M. Tsukada, Japan

S. T. Pantelides, USA

L. Yu, Italy

A. Qteish, Jordan

### Lecturers

P. Blaha, TU Wien, Austria

S. Cottenier, KU Leuven, Belgium

P. Novak, Academy of Sciences, Czech Republic

S.T. Pantelides, Vanderbilt Univ., USA

M. Parrinello, Max - Planck - Institut, Germany

K. Schwarz, TU Wien, Austria

M. Scheffler, Fritz - Haber - Institut, Germany

E. Tossati, SISSA, Italy

M.Tsukada, Univ. of Tokyo, Japan

### Application

The application form is available at the web address: http://www.iut.ac.ir/ccmp

Those interested in attending should return the application form by November 20, 2001 to:

Prof. H. Akbarzadeh, Department of Physics

Isfahan University of Technology, Isfahan, Iran

Email: Akbarzad@cc.iut.ac.ir Fax: (+98)3113912376 Phone: (+98)3113912375

Inquiries received after November 20 can only be considered subject to remaining vacancies.

The candidates who are accepted will be informed in mid January 2002.

The workshop fee per participant is US \$500, which includes lodging in double rooms in the university guest house, meals and workshop materials. The fee is payable only after the selections have been made.

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## abdus salam

international centre for theoretical Physics





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### **DIRECTORS:**

#### H. Akbarzadeh

Department Of Physics Isfahan University of Technology Isfahan, Iran

#### K. Schwarz

Vienna University of Technology Vienna, Austria

Application deadline
November 20, 2001