Introduction

ICTPMCS, the series of IFHTSE international conferences covering all aspects of modeling and simulation of thermal process, began in 2000 in Shanghai, China. Nos. 2 and 3 in the series were held in 2003 Nancy, France and 2006 Budapest, Hungary. This fourth event, ICTPMCS-2010, will once again be held in Shanghai. It continues the series aim of promoting international collaboration and cooperation, providing a forum for scientists and engineers to discuss fundamentals, innovations and applications, offering an opportunity for exchanging latest results and sharing new knowledge. Shanghai Jiao Tong University (SJTU) is the organizer, as it was for No. 1 in 2000.

The World Expo 2010, with its theme "Better City, Better Life", will take place from May 1 to October 31 in the same year and in the same city; this will clearly provide a further opportunity for participants to benefit from a memorable experience.

Program Topics and Themes

ICTPMCS-2010 will include, but not necessarily be confined to, the following topics:

- Modeling and simulation of heat treatment and surface engineering processes - quenching, tempering, carburizing, nitriding, carbonitriding, coatings, plasma nitriding, deposition technology, powder metallurgy, etc

- Computer simulation of other thermal processes - rolling, forging, welding, casting, semi-solid processing, etc

- Modeling of the materials-related physical phenomena - diffusion, phase transformation, thermo-mechanical behavior (plasticity, transformation plasticity, segregations, etc)

- Numerical description of the process-related phenomena, such as CFD simulation in vacuum processing (heating, quenching, carburizing), electro-magnetic field simulation in induction heating, etc

- Micro-scale modeling and simulation to deepen the understanding of processes, including MD, MC, first principles method, etc

- New developments in numerical methods - FEM, FDM, FVM and others

- The application of computer simulation in industry

- Commercial software and databases used in modeling and simulation of thermal process

Important Dates

First circular	
Advance registration	31 Aug. 2009
Abstracts submission	31 Dec.2009
Acceptance of abstracts	11 Jan. 2010
Second circular	
Registration	28 Feb. 2010
Payment of registration fee	31 Mar. 2010
Full manuscripts submission	30 Apr. 2010

Final announcement	30 Apr. 2010
Conference opening	31 May 2010