EDITORIAL

Welcome to Volume 1 Number 1 of Computational Thermal Sciences

Computational Thermal Sciences is a new peer reviewed international journal designed to provide a forum for the exposure and exchange of ideas, methods and results in all areas of thermal sciences: computational thermodynamics, fluid dynamics, heat transfer and mass transfer in solids, liquids and gases, with applications in areas such as energy, materials processing, manufacturing and the environment. All modes of heat and mass transfer will be included: conduction, convection, diffusion, radiation and phase change. Topics to be covered will also include the laws of thermodynamics, the thermal properties of substances, engine and refrigeration cycles and combustion.

Papers on all aspects — both fundamental and applied — will be welcome: on the one hand the development of new mathematical methods and computational algorithms, and on the other the application of new or existing methods to the solution of problems in the thermal sciences. Reports of experimental studies undertaken in conjunction with computational work are encouraged. The assessment of the accuracy of computational solutions through verification (examining and limiting errors associated with discretization and with the computational solution methods adopted) and validation (quantification of errors in the physical models used) are essential parts of any computational study, and authors will be expected to examine these aspects.

Some of the papers in this issue are expanded or modified versions of papers originally presented at CHT-08, an International Symposium on Computational Heat Transfer, Marrakech Morocco, May 2008, which was organised by the International Centre for Heat and Mass Transfer. We are pleased to continue the relationship between Begell House and ICHMT, but of course this journal will welcome original research papers from all sources.

Volume 1 Number 1 of Computational Thermal Sciences is dedicated to the memory of Eddie Leonardi, formerly Associate Editor, who tragically died at an early age on December 14, 2008.

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