

ICCM 2010 Minisymposium on Advances in Computational Methods Based on Boundary Integral Equations (November 19th-21st, Zhangjiajie, Hunan Province, China)

This minisymposium is organized as a part of the International Conference on Computational Methods (ICCM 2010), which will be hosted by the College of Mechanical and Vehicle Engineering, Hunan University, during November 19th-21st, 2010 in Zhangjiajie, Hunan Province, China.

Objectives

Recently, some breakthroughs in Boundary Integral Equation (BIE) techniques have significantly broadened the applications of the Boundary Element Method (BEM) and other BIE related methods. These techniques include the Fast Multipole method, Hierarchical Matrix, Adaptive Cross Approximation, Dual Reciprocity Method, etc. Thanks to these techniques, many linear and nonlinear problems associated with large-scale and multi-scale modeling of advanced materials, structures, fluids, and MEMS/NEMS can now be effectively solved using the BEM. The aim of this minisymposium is to facilitate further in depth discussions on the emerging applications and future research directions of the BIE-based methods.

Proposed Topics

The minisymposium will cover *all aspects* of the BIE-based methods. Topics include but are not limited to the following:

- Boundary Element Method and other BIE related methods
- Acceleration methods, such as the Fast Multipole Method, the Hierarchical Matrix and the Adaptive Cross Approximation, etc.
- Dual Reciprocity Method and other domain integration schemes
- Meshless Methods and other mesh reduction methods
- Elasticity, Elastoplasticity and Elastodynamics
- Contact Mechanics, Optimization and Inverse Problems
- Fluid Mechanics and Electromagnetic Fields
- Coupled Problems and Mathematical Aspects

Call for Papers

Prospective authors are invited to submit an abstract of no more than 150 words together with a complete list of co-authors to Prof. Jianming Zhang (zhangjm@hnu.edu.cn) by July 15th, 2010. Selected papers presented in the minisymposium may be peer-reviewed for possible publication in the *International Journal of Computational Methods*. For the abstract format and more information about the conference please visit the conference webpage at <http://dmvb.hnu.cn/ICCM2010>.

Minisymposium organizers:

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