

ANNOUNCEMENT AND CALL FOR ABSTRACTS

**MiniSymposium on Computational Methods
for
Multiscale Simulation of Materials**

To be held at the Fifth U.S. National Congress on Computational Mechanics
Wednesday-Friday, August 4-6, 1999, University of Colorado at Boulder, CO, USA

Symposium Organizers: KYEONGJAE CHO AND PETER M. PINSKY

Multiscale simulation techniques for materials modeling has been gaining much attention in many engineering and science communities and has emerged as a promising approach for addressing the challenges in efficient and accurate simulation method development. A primary goal of current multiscale simulation methodology is the seamless integration of the continuum Finite Element Method and Atomistic Molecular Dynamics. To achieve this goal, major breakthroughs are required in the computational methods to overcome the length scale and the time scale problems. A general consensus has been formed on the importance of these topics, and several recent pioneering approaches appear promising.

This MiniSymposium will provide a forum to present recent developments and to exchange new ideas on future development in the field. Presentations on general computational methods and materials applications are solicited. The sessions will consist of invited and contributed papers.

Contributions are solicited in the following areas:

- Computational methods for coupling finite elements and atomistic models
- Multiple timescale techniques
- Adaptive and reversible interchange of finite elements and atoms
- Advances in Green's function methods
- Heat transport and elastic waves at finite element-atom interface
- Materials simulation with multiscale programs
- Radiation boundary condition for atomic dynamics
- Coupling of continuum fluid volume elements and atomistic models
- Accuracy analysis and error estimation

Submission Instructions:

If you are interested in contributing to this MiniSymposium, please submit a one-page abstract of up to 400 words *by e-mail* to one of the organizers listed below *on or before January 5, 1999*. Abstracts sent by Fax or regular mail will not be considered.

Abstracts may be submitted in one of three forms: (1) plain text, (2) \TeX source compatible with the Plain \TeX format, or (3) Word 6 or 7 document in Rich Text Format (RTF). Please *do not* include figures or graphics. Avoid equations in title or text. Greek letters are acceptable if the abstract is submitted in \TeX or Word. For samples of forms (1) and (2) click links in

<http://civil.colorado.edu/usnccm99/Abstracts.d/Information.html>

If the abstract is co-authored it must identify the e-mail of the corresponding author. All subsequent correspondence will take place by e-mail. Abstracts deemed to fit the scope and objectives of the Symposium will be communicated to the Congress organizers by January 15, 1999, and notification of acceptance will be given by e-mail to the corresponding author.

A final version for inclusion in the printed book of Abstracts may be submitted before May 15, 1999. This final form is to be sent directly to the Congress e-mail address following the instructions posted on the Web site.

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MiniSymposium Organizer Addresses:

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