

ANNOUNCEMENT AND CALL FOR ABSTRACTS

MiniSymposium on Inverse Problems

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: K. F. ALVIN AND K. C. PARK

The solution of inverse problems is a growing and challenging field within computational mechanics and heat transfer. Briefly, inverse problems involve the determination of parameters, model structure, boundary conditions and so on from knowledge of a system's response. As high performance computing continues to push modeling and simulation to higher levels of fidelity and physics complexity, inverse problems are potentially more ill-posed and difficult to solve. Furthermore, as sponsors demand higher levels of predictive accuracy from computational modeling and simulation, inverse methods are becoming ever more important for purposes of model validation and uncertainty quantification.

Contributions are solicited in the following areas:

- Parameter estimation and model updating
- Finite element disassembly
- Identification of Model Form and boundary conditions
- Forcing function identification
- Inverse algorithms for structural damage detection health monitoring
- Identification of failure modes/mechanisms
- Sensitivity analysis and experiment design
- Inverse problems in coupled systems
- Bayesian inference and uncertainty methods
- High performance computing aspects of inverse problems

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 December 15, 1998*. 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 the conference website (<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.

MiniSymposium Organizer Addresses:

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