

ANNOUNCEMENT AND CALL FOR ABSTRACTS

**MiniSymposium on Advanced Finite Element Models**

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: C. A. FELIPPA, E. RAMM AND W. A. WALL

This MiniSymposium will provide a forum for presentation and discussion of innovative finite element models in the simulation of problems in engineering and physics. Focus is on novel element-level formulations and their computer implementation. Application areas are not restricted. They may include fluids, solids and thermo mechanics. Contributions that reflect standard techniques, such as described in FEM textbooks, are discouraged.

**Contributions are solicited in the following areas:**

- Innovative variational and weak formulations of finite elements
- Mixed and hybrid finite element models
- Mathematical foundations and analysis of novel elements
- Multiscale, homogenized and composite elements
- High performance elements for membranes, plates and shells
- Lumped and discrete elements for masonry, granular media, ice and rock mechanics.
- Special elements for modeling singularities, localization, interfaces, joints, multipoint constraints, sensors and actuators.
- Linkage of finite elements to BEM, FVM and FDM discretizations
- Innovative models for geometric and material nonlinearities
- Element-level treatment of incompressibility and irrotational motion constraints in solid and fluid mechanics
- Dynamic finite element models in the time or frequency domain
- Treatment of volume-coupled problems by volume-sharing meshes

**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 on or before January 15, 1999**. Contributors in the USA, Canada, Latin America, Far East and Oceania should submit the abstract to C. A. Felippa. Contributors in Europe, Middle East and Africa should submit the abstract to W. A. Wall. Abstracts sent by Fax or regular mail will not be considered.

Abstracts may be submitted in one of three forms: (1) plain text, (2)  $\text{T}_{\text{E}}\text{X}$  source compatible with the Plain  $\text{T}_{\text{E}}\text{X}$  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  $\text{T}_{\text{E}}\text{X}$  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.

**MiniSymposium Organizer Addresses:**

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