

## Special Session

on

### ***ADVANCED NUMERICAL METHODS FOR SCIENTIFIC COMPUTING***

#### ABSTRACT

Large scale computer simulations have become an important component of science and engineering, hand in hand with the more traditional components such as theoretical analysis and laboratory experimentation and verification.

Scientific computing is the most rapidly developing part of computational science, and the development of advanced large-scale scientific computing tools is among the most important goals of this special session.

Specific topics of interest (but not limited to) are the following:

- (i) robust multilevel/multigrid preconditioning of strongly heterogeneous/multiscale problems;
- (ii) efficient splitting algorithms for coupled and time dependent problems;
- (iii) scalable parallel algorithms and supercomputer applications.