

Conference :  
**IACM / ECCOMAS Congress 2008**  
**Lido Island, Venezia, Italy**  
**June 30 - July 5th**

organizers :

Dr. Jürgen Geiser  
Humboldt-Universität zu Berlin  
Department of Mathematics  
Unter den Linden 6  
D-10099 Berlin, Germany  
geiser@mathematik.hu-berlin.de

and

Professor Qin (Tim) Sheng  
Department of Mathematics  
Baylor University Waco, TX 76798-7328, USA  
Qin\_Sheng@baylor.edu

Minisymposium :  
**Time- and spatial decomposition methods for Multi-physical and Multi-field Problems.**

In the last years different decomposition methods have played an important role in the numerical solution of differential equations. Because of challenges in simulating evolution-equations for multi-physical and multi-field problems, efficient decoupling methods combining with discretization methods are important. Further adaptive methods in the area of the splitting methods associated with finite differences, finite elements, or adaptations have been used widely and have been shown to have powerful capabilities in solving different differential equation problems in various applications. The aim of this minisymposium is to highlight the methods with respect to the applications in multi-physical and multi-field problems. It address to researchers and applicants dealing with results in topics including, but not limited to:

- spatial decomposition methods for multi-physical problems
- time decomposition methods, e.g. Operator-Splitting methods, ADI-methods, Iterative Splitting methods, etc.
- Splitting methods for higher efficiency and accuracy
- Splitting for non-linear differential equations
- Theoretical results in stability and convergence of decomposition methods
- Applications of time- and spatial decomposition methods in multi-physical and multi-field problems

We would like to bring experts in theory and application together and discuss the recent development and the possible future works.