

APCOM & ISCM 2013 – CALL FOR PAPERS



5th ASIA PACIFIC CONGRESS ON COMPUTATIONAL MECHANICS & 4th INTERNATIONAL SYMPOSIUM ON COMPUTATIONAL MECHANICS

<http://www.apcom2013.org/>

MS77 - MULTIDISCIPLINARY INVERSE PROBLEMS, DESIGN AND OPTIMIZATION UNDER UNCERTAINTY

When performing real life optimization or parameter identification, usually some level of uncertainty is intrinsically present in the models used. Such uncertainty can be present in the measured boundary and/or initial conditions, physical properties of the media, or even the mathematical model that does not represent the physical phenomena with a high degree of fidelity. When candidate solutions are very expensive or time consuming, which is typical of real life problems encompassing multidisciplinary analyses, it is a common practice to use metamodels or low fidelity models to represent a more complex problem, in order to save time and computational resources in large scale optimization and inverse problems. Thus, there is a recognized and rapidly growing need for the development of reliable, accurate and computationally efficient methods to deal with such uncertainties in inverse problems, design and optimization of real life nonlinear multidisciplinary problems. This minisymposium intends to bring together international experts on these subjects and serve as a forum for comparing the capabilities and drawbacks of conceptually different algorithms, thus advancing the fields of inverse problems, design and optimization under uncertainty. Special interest is given to contributions involving techniques within the Bayesian framework.

MS Organizers:

Marcelo J. Colaço
Federal University of Rio de Janeiro, Brazil

Helcio R. B. Orlande
Federal University of Rio de Janeiro, Brazil

George S. Dulikravich
Florida International University, USA

Ireneusz Szczygiel
Silesian University of Technology, Poland

Important Dates:

15 May. 2013: Deadline for abstract submission
30 June 2013: Acceptance of abstracts
15 Aug. 2013: Deadline for full paper submission
01 Sep. 2013: Deadline for early registration
11 – 14 Dec. 2013: Conference dates

Conference Venue:

APCOM2013 will be held at the InterContinental Hotel, Singapore.

Sponsors:

Association for Computational Mechanics (Singapore), SACM;
International Centre for Applied Mechanics (XJTU, China).