

Preface

Special Issue for ESCO 2010

This special issue is dedicated to the second European Seminar on Coupled Problems (ESCO 2010) that was held on June 28–July 2, 2010 in Pilsen, Czech Republic.



ESCO is an international workshop co-sponsored by the University of Nevada (Reno), Institute of Thermomechanics (Prague), University of West Bohemia (Pilsen), and New Technologies Research Centre (Pilsen). The objective of the meeting is to advance the frontiers of computer modeling in various areas of engineering and science. Main topic areas include Multiphysics models and methods and Python in scientific computing.

Multiphysics models and methods

Coupled problems in mechanics, electromagnetics, fluid dynamics, nuclear engineering, biosciences and other fields.

Coupling mechanisms for mutiphysics/multiscale problems.

Monolithic models, model reduction and adaptivity.

Automatic adaptivity: higher-order methods, transient problems.

Verification and validation, uncertainty treatment.

Python in scientific computing

Interactive browser tools, web-based computing and visualization.

Python scientific computing tools such as SciPy, NumPy, SymPy etc.

Python in open source scientific computing projects.

Common platforms for scientific computing, interfacing and interoperability.

Plenary invited speakers

Zdenek Bittnar (Czech Technical University, Prague)

Glen Hansen (Idaho National Laboratory, USA)

Ronald Hoppe (University of Houston, USA)

William Mitchell (NIST, USA)

Gael Varoquaux (INRIA, France)

ESCO 2012 was attended by approximately 100 participants from 16 countries. Next ESCO 2012 will take place again in Pilsen on June 25–29, 2012.

Pavel Solin (University of Nevada, Reno)
on behalf of the organizing committee