

Biographical Sketch

SANTIAGO BADIA is Professor at UPC and Adjoint Researcher at CIMNE, where he leads the “Large Scale Computing and Computational Physics” department. His main contributions to the field of scientific computing have been oriented to the development and numerical analysis of advanced finite element techniques, primarily focused on fluid flows and related coupled and multiphysics problems, with emphasis on fluid-structure interaction and magnetohydrodynamics. He works on physics-based and massively parallel domain decomposition preconditioning. The codes developed in his group have been used to solve large-scale complex MHD phenomena, e.g. test blanket modules for ITER, using the largest supercomputers in Europe and Japan, up to 30,000 cores and billions of unknowns.

He has been recipient of numerous awards, like the Outstanding PhD award from the UPC, the SEMNI and ECCOMAS 2006 awards for the best PhD thesis in Spain and Europe, the Juan Carlos Simo 2010 Young Investigation Award from SEMNI and the 2012 Young Investigator Award from the Applied Mathematics Spanish Society.

He has received the Ramon y Cajal fellowship from the Spanish government and the Marie Curie fellowship from the European Union. He holds a Starting Independent Research grant from the European Research Council (2011-2016).