> Seminario de Matemática Aplicada

USC UNIVERSIDADE DE SANTIAGO DE COMPOSTELA
DEPARTAMENTO DE MATEMÁTICA APLICADA

imat

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Recent advances on reduced order modelling for viscous and thermal flows in parametrized settings: focus on stability and bifurcations

Some recent developments of reduced order modelling (ROM) in computational fluid dynamics for viscous incompressible flows will be discussed. The main topics will deal with the use of combined ROM techniques currently available, efficient sampling procedures, inf-sup pressure stabilization for ROM approaches, error bounds, computational performances. Spectral elements method is used for basis generation. Some emphasis will be given to the stability of flows and steady and Hopf bifurcations and numerical techniques for their detections by the eigenvalues computed with reduced order models. Numerical results will be applied to classical benchmarks study cases and to the Coanda effect in cardiac blood flow simulation, provided as guideline and perspective application.

Fecha	**Jueves, 19 de mayo de 2016**
Lugar	**Aula Magna - Facultad de Matemáticas** **Se podrá seguir por videoconferencia desde el Campus de Lugo**
Hora	**11:00**
Idioma	**Inglés**

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