



DEPARTAMENTO DE  
MATEMÁTICA APLICADA



## Curso de doctorado

Doctorado en Investigación Matemática – UCM  
Doctorado IMEIO – UCM / UPM

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## Homogeneization at critical scales for nonlinear PDEs

1. Homogenization limit for the Poisson equation with nonlinear flux condition on the boundary of very thin holes periodically distributed in a domains: critical case
2. Homogenization limits for the Poisson equation with nonlinear Robin type condition on the boundary of cavities periodically distributed in a domains: noncritical cases
3. Homogenization problem in a plane domain perforated by tiny isoperimetric holes with nonlinear Robin type boundary conditions : critical case
4. Homogenization problem for the  $p$  - Laplace operator with nonlinear boundary condition for the flux on the boundary of cavities: critical case
5. Avarading of the biharmonic equation in a domain perforated along low-dimensional manifolds

Organizado por el Grupo de Investigación de la UCM *Modelos Matemáticos en Ciencia y Tecnología: Desarrollo, Análisis, Simulación Numérica y Control*, el Departamento de Matemática Aplicada de la UCM y el IMI

Fechas: Del 30/11 al 4/12 2015.

La primera sesión: 11h

**Seminario Alberto Dou**

**Facultad de Ciencias Matemáticas, UCM.**