



DEPARTAMENTO DE
MATEMÁTICA APLICADA



Curso de doctorado

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

Tatiana Shaposhnikova

Moscow State University

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.

Seminario Alberto Dou

Facultad de Ciencias Matemáticas, UCM.