

Séminaire groupe physique du 27/11/2013

***Control of acoustic, elastic and electromagnetic waves by metamaterials***

**Daniel Torrent,**

Electronic Engineering Department, Universitat Politècnica de València,  
Valencia, Spain

In this talk the main results found by the Wave Phenomena Group of the Polytechnic University of Valencia are presented. It is shown how, based on a homogenization theory, devices like cloaking shells, acoustic "black holes" or radial photonic crystals can be realized by periodic arrangements of acoustic or electromagnetic scatterers. Finally, an acoustic and elastic analogue of graphene is introduced.