

SIPO (Seminario de Investigadores Postdoctorales)

Speaker: David Torregrosa Belén (CMM).

Title: A stroll through monotone inclusion problems and their splitting algorithms.

Abstract:

Many situations in convex optimization can be modeled as the problem of finding a zero of a monotone operator, which can be regarded as a generalization of the gradient of a differentiable convex function. In order to numerically address this monotone inclusion problem it is vital to be able to exploit the inherent structure of the monotone operator defining it. The algorithms in the family of the splitting methods are able to do this by iteratively solving simpler subtasks which are defined by separately using some parts of the original problem. In this talk, we will introduce some of the most relevant monotone inclusion problems and present their applications to optimization. We will describe the different difficulties arising in their treatment, which urge to consider specific splitting schemes suitable for each monotone operator.

Date: 18/11/2024 a las 14:30 hrs.

Venue: Jacques L Lions, Seminar Room, CMM, Beauchef 851, North Tower, 7th Floor

