

Departamento de Matemáticas

Low-Dimensional Euclidean Distance Matrix Completion via a Feasibility Formulation

Abstract: *We consider the problem of reconstructing the matrix of pairwise distances between a collection of points contained in a Euclidean space, knowing only a subset of the entries in the matrix. The problem is formulated as a non-convex feasibility problem which is solved using the Douglas-Rachford algorithm. A sufficient condition for local convergence of the algorithm is provided in terms of regularity properties of the constraint sets. To illustrate the approach, we apply it to a protein structure determination problem where the incomplete data arises from using NMR spectroscopy techniques.*

Joint work with Francisco Aragón Artacho and Jonathan Borwein.

Matthew Tam

**University of Newcastle (Australia) &
University of Göttingen (Germany)**

Fecha: Martes día 1 de marzo de 2016, a las 12:00.

Lugar: Seminario de Matemáticas