Thursday, September 10th, 17:00-18:00

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CONSTRUCTION OF GROUP INVARIANT SPACES FOR APPROXIMATING FUNCTIONAL DATA, WITH APPLICATIONS TO DIGITAL IMAGES

Suppose we are given a finite, typically large, dataset of L^2 functions with domain the Euclidean space or any LCA group, and a semidirect product group G of discrete translations and automorphisms/linear applications acting on such a domain. We consider the problem of approximating the dataset by its projection onto the subspace spanned by the action of G on a finite, ideally small, set of functions, called generators. In this seminar, we will first discuss a constructive proof that provides the generators of the optimal subspace for the approximation, and then see the results of this construction on common datasets of natural images.

This is a joint work with C. Cabrelli, E. Hernández and U. Molter.

Link: https://eu.bbcollab.com/guest/fbebf6301b4f49f18d7285610e1e6f10

The link to the session will be active from 16:30.