



## *colloquia@iasi*



*"La mente è come un paracadute.  
Funziona solo se si apre"  
A. Einstein*

### **A Geometric Approach to Confidence Regions and Bands for Functional Parameters**

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#### Abstract

Functional data analysis, FDA, is a branch of statistics concerned with inference from samples of functions or curves. It is now a well established discipline of statistics, with its core concepts and perspectives in place. Despite this, there are still fundamental statistical questions which have received relatively little attention. One of these is the systematic development of techniques for constructing confidence regions for functional parameters. I will present new work concerned with developing, understanding, and visualizing such regions. Simulations will be presented as well as an application to Multiple Sclerosis and its connection to degeneration of the Corpus Callosum, a white matter tract connecting the two hemispheres of the brain.