Gabriel Riutort Mayol
gabriuma@gmail.com

Statement of interest and vision

I have a broad interest in various fields of applied statistics, machine learning and environmental sciences with emphasis on Bayesian methods, (spatial and temporal) data-bases and image processing.

My main focus is on advanced statistical modeling for analysing ecological and environmental data and to support environmental management and decision making, with emphasis on non-parametric models such as Gaussian processes and hierarchical models. Recent projects have been: Spatio-temporal modeling and predicting of salinity in wetland growing areas using Gaussian processes, and characterization and cost assessment of urban sprawl on municipal services using hierarchical regression. I also have a special interest in computer vision and image processing, with an ongoing project on normalizing color in 3D digital models.

I am currently in the last year of my PhD research in statistics and optimization at the Department of Statistics and Operations Research at the Universitat de València. My PhD research is based on Gaussian processes with derivative information and low-rank approximate Gaussian processes in machine learning, with some applications in spatio-temporal modeling of microfading spectrometry data, spatio-temporal classification of land uses, and characterization of image sensor noise.

I completed a 11-month research stay as a PhD student in the Probabilistic Machine Learning (PML) group, with professor Aki Vehtari, in Aalto University, Finland, working on Gaussian processes in machine learning. Following this stay I still collaborate with some of its members.