Abstract:
In this talk I will present two classes of spatial-temporal stochastic models that arise through a Moving Average construction.
The first class consists of Moving Averages with driving noise that are Gaussian fields driven by deterministic dynamics.
The second is a class of models termed Laplace Moving Averages with driving noise that is a Laplace motion.
The need for such models is mostly practical.
Most of the environmental phenomena present some type of dynamics, so we need models that account for motion.
Moreover, time as well as space irreversibility, although is a property satisfied by Gaussian models, is not usually observed in nature.
Thus there is a need for models that exhibit different types of asymmetries both in space and time.