

ANUNCI DE BECA DE FORMACIÓ DE PERSONAL INVESTIGADOR (FPI-MICINN)

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**Beca per realitzar una tesi doctoral en el projecte
*Sistemes estocàstics d'evolució i aplicacions (MTM2009-07203)***

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Descripció de les línies generals del projecte:

This project belongs to the field of stochastic analysis. The main objectives consist of developing, analyzing and applying stochastic models given by stochastic partial differential equations but also stochastic differential equations. The background, tools and methods come mainly from infinite-dimensional analysis, stochastic calculus of variations (Malliavin calculus and generalizations), fractional calculus, large deviations, rough path analysis, and stochastic models for the pricing and hedging of financial derivatives.

Project main plan encompasses:

- New problems and new applications of Malliavin calculus; standard applications of the calculus to unexplored objects.
- Some classical issues in the theory of SPDEs in situations not well-studied yet, like irregular coefficients, large spatial dimensions or fractional noise.
- New path-wise approaches on models with fractional noise.
- New applications of anticipating calculus to stochastic volatility models with jumps.

Durada: 4 anys a partir de la data d'incorporació.

Dotació: Beca de 1.142 € mensuals bruts els dos primers anys; contracte de 16.422 € anuals bruts els dos darrers anys.