

Seminario de análisis matemático y aplicaciones  
Analisi matematikoa eta aplikazioak mintegia

Differentiability properties of stochastic  
flows in non-relativistic QED

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**ABSTRACT:** Together with Batu Guneyusu and Jacob Schach Moller we recently studied stochastic differential equations associated with the standard model of non-relativistic quantum electrodynamics (QED). In this talk we discuss differentiability properties of the corresponding stochastic flow. Furthermore, we present a Bismut-Elworthy-Li type formula for the derivatives of the semi-group generated by the non-relativistic QED Hamiltonian revealing the smoothing properties of the semi-group. Finally, we explain how to prove the smoothness of an associated Fock space operator-valued semi-group kernel.

**LUGAR / LEKUA:**

Sala de seminarios de la sección de matemáticas  
Matematika ataleko mintegi gela

**DÍA Y HORA / EGUNA ETA ORDUA:**

24/11/2016, 12:00