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### Seminario

## Conjunto de Modelamiento Estocástico y Núcleo Milenio MESCYD.

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# Título Limiting laws for some integrated processes

### Resumen:

The study of limiting laws, or penalizations, of a given process may be seen (in some sense) as a way to condition a probability law by an a.s. infinite random variable. The systematic study of such problems started in 2006 with a series of papers by Roynette, Vallois and Yor who looked at Brownian motion perturbed by several examples of functionals. These works were then generalized to many families of processes: random walks, Lévy processes, linear diffusions...

We shall present here some examples of penalization of a non-Markov process, i.e. the integrated Brownian motion, by its first passage time, nth passage time, and last passage time up to a finite horizon. We shall show that the penalization principle holds in all these cases, but that the conditioned process does not always behave as expected. Recent results around persistence of integrated symmetric stable processes will also be discussed.

Fecha: 11 Agosto, 16:30 hrs.

Lugar: Sala de Seminarios John Von Neumann CMM, Beauchef 851, Torre Norte piso 7.

