

## **Exponential functionals of Brownian motion and their relation with the blowup in finite time of a system of SPDEs**

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In the first part of this talk, I will show some classical methods to get the Laplace transform of integral functionals of Brownian motion. After this motivation, I will present some results about blowup in finite time of a system of SPDEs with multiplicative noise. In particular, upper and lower bounds for the probability of explosion in finite time will be presented. Such bounds are in terms of the distribution of the functionals given in the first part.

This is a joint work with Dr. José A. López-Mimbela.