

# Seminário de sistemas dinâmicos e estocásticos

Departamento de Matemática - IMECC - UNICAMP

## Hermite processes and the heat equation

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### Resumo:

The Hermite processes are self-similar stochastic processes with stationary increments. The class of Hermite processes includes the fractional Brownian motion, which is the only Gaussian Hermite process, and the Rosenblatt process.

We analyze the solution to the heat equation driven by a multiparameter Hermite process. This solution is an element of the  $q$ th Wiener chaos. We discuss various properties of the solution, such as the necessary and sufficient condition for its existence, self-similarity,  $\alpha$  variation and regularity of its sample paths. We will also focus on the probability distribution of the solution.

**Data:** Sexta-feira, 29 de setembro de 2017, 14hs.

**Local:** Sala 321 do IMECC.

Consulte a programação em [[www.ime.unicamp.br/ssde](http://www.ime.unicamp.br/ssde)]