

**SEMINARIO**

**OPTIMIZACIÓN Y EQUILIBRIO**

**Expositor**

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**Título**

**(Sub-)Gradient formulae for probability functions with applications to power management.**

**Resumen:**

Given a parameter-dependent random inequality system a probability function assigns to the parameter the probability of satisfying this system. Such functions play a fundamental role in defining so-called probabilistic or chance constraints as they arise in numerous engineering problems (e.g. hydro reservoir management under uncertain inflows or gas network management under uncertain demand).

Probability functions exhibit some inherent nonsmoothness even if the input data (random inequality system and density of the random distribution) are smooth. Hence the application of tools from nonsmooth and variational analysis comes as a natural consequence. The talk discusses (sub-)differentiability of probability functions and discusses some application to power management.

Miércoles 25 de noviembre del 2015 a las 16:30 hrs, Sala de Seminarios John Von Neumann  
CMM, séptimo piso, torre norte de Beauchef 851.