



**CENTRO DE MATEMÁTICA E  
APLICAÇÕES FUNDAMENTAIS**



*Grupo de  
Física Matemática  
da Universidade de Lisboa*

## **SEMINÁRIO CONJUNTO DO CMAF E DO GFM**

**Dia 18 de Abril de 2013 (quinta-feira), às 14 horas, na Sala B3-01**

### **Root's barrier, viscosity solutions of obstacle problems and reflected FBSDEs**

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*(Tech. Univ. Berlin, Alemanha)*

#### **Abstract**

Following work of Dupire (2005), Carr-Lee (2010) and Cox-Wang (2011) on connections between Root's solution of the Skorokhod embedding problem, free boundary PDEs and model-independent bounds on options on variance we propose an approach with viscosity solutions. Besides extending the previous results, it gives a link with reflected FBSDEs as introduced by El Karoui et. al. (1997) and allows for easy convergence proofs of numerical schemes via the Barles-Souganidis (1991) method. (see arXiv:1301.3798)

Local:



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