



**Mês de: Março 2010**

## **SEMINÁRIO DE ANÁLISE E EQUAÇÕES DIFERENCIAIS**

**Dia 25 de Março (quinta-feira), às 14h15, na Sala B3-01**

“On the Two Obstacles Problem in Orlicz-Sobolev Spaces and Applications”

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(CMAF)

**Abstract:**

We prove the Lewy-Stampacchia inequalities for the two obstacles problem in abstract form for  $T$ -monotone operators. As a consequence for a general class of quasi-linear elliptic operators of Ladyzhenskaya-Ural'tseva type, including  $p(x)$ -Laplacian type operators, we derive new results of  $C^{1,\alpha}$  regularity for the solution. We also apply those inequalities to obtain new results to the  $N$ -membranes problem and the regularity and monotonicity properties to obtain the existence of a solution to a quasi-variational problem in (generalized) Orlicz-Sobolev spaces.

Parcialmente suportado pela FCT ao abrigo do Financiamento Base

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