

**Mês de: JANEIRO 2015**

**SEMINÁRIO DE ANÁLISE E EQUAÇÕES  
DIFERENCIAIS**

**Dia 22 de Janeiro (quinta-feira), às 13:30h, na Sala B3-01**

Non-linear optimal design problems

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**Abstract:**

We consider the problem of minimizing the fractional Laplacian with a constraint on the volume of the positivity set. We prove that every solution has locally  $C^{0,\alpha}$  regularity. We also show that the free boundary is smooth by proving finiteness of its  $(n - 1)$ -dimensional Hausdorff measure.

