



Mês de: **Dezembro 2010**

SEMINÁRIO DE ANÁLISE E EQUAÇÕES DIFERENCIAIS

Dia 14 de Dezembro (terça-feira), às 15h30, na Sala B2-01

“Singular Integral with variable Calderón-Zygmund kernel in Morrey spaces”

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Abstract:

We study continuity in *Morrey spaces* of singular integral operators $\mathcal{K}f$ with variable *Calderón-Zygmund type kernel* $k(x; y)$ and their commutators $\mathcal{C}[a, f]$ with multiplication by a *BMO*-function. The kernel satisfies the following mixed homogeneity condition with respect to y

$$k(x; r^{\alpha_1} y_1, \dots, r^{\alpha_n} y_n) = r^{-|\alpha|} k(x; y)$$

for all $r > 0$ and any multiindex $\alpha = (\alpha_1, \dots, \alpha_n)$. By expanding the kernel in Fourier series with respect to the system of *spherical harmonics* we reduce the study of these integrals to ones with non-variable kernel.

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