



UNIVERSIDADE FEDERAL DO PARANÁ - UFPR
CENTRO POLITÉCNICO
DEPARTAMENTO DE MATEMÁTICA

Seminários Contínuos do Programa de Pós-Graduação em Matemática

19 de outubro de 2018 - 15:30 - Anfiteatro A (Bloco PC)

On the regularity of P.D.E.'s problems: connections with geometry, number theory, and Homer Simpson.

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ABSTRACT. In this seminar, we discuss some tools and techniques used to solve the following problem: let M be a closed smooth manifold, f a smooth function belonging to $C^\infty(M)$ and L a linear partial differential operator. Let u be an element on a bigger and more general space $D(M)$ that contains $C^\infty(M)$. Now, if u and f satisfy the equation

$$L(u) = f,$$

can we guarantee that u belongs to $C^\infty(M)$?