



Mês de: **Novembro 2011**

SEMINÁRIO DE ANÁLISE E EQUAÇÕES DIFERENCIAIS

Dia 30 de Novembro (quarta-feira), às 13h30, na Sala B3-01

“A nonlinear hyperbolic Maxwell system”

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Abstract:

We consider a modified antenna's problem with power-type constitutive laws. This consists in a new nonlinear hyperbolic system that extends a Duvaut-Lions model. Using the Galerkin approximation, properties of the natural functional spaces, and exploring the $L^p - L^{p'}$ duality, we prove the existence of solutions, in a generalized sense, passing to the limit in a family of approximated problems and using measure-valued functions. In this process the difficulties in obtaining the necessary a priori estimates for the solutions of the finite-dimensional problems are overcome through the use of bases with special properties related to the model. Joint work with Lisa Santos.

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