



SEMINARIO DE ANÁLISIS NUMÉRICO Y MODELACIÓN MATEMÁTICA

GIMNAP-Departamento de Matemática, UBB
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Título de la Charla:

***Recent progress in inverse problems
in electrocardiology***

Fecha y Hora:

Martes 15 de Enero de 2019, 15:30 Horas.

Lugar:

**Sala Seminario, Facultad de Ciencias
Universidad del Bío-Bío.**

Resumen

In this talk, we will study an homogeneous and non-homogeneous inverse problem in electrocardiology representing the heart, lungs surfaces, and torso model. Our goal is to reconstruct the electrical potentials on the surface of the heart from the information obtained non invasively on the torso surface. The existence and uniqueness of solution for the heart-torso problem and the related inverse problem is assessed, and the primal and dual problems are discretized using a finite element method. We present some preliminary numerical experiments using an efficient implementation of the proposed scheme in homogeneous and nonhomogeneous cases.