

Seminar EDPs

Speaker: Xavier Lamy, Institut de Mathématiques de Toulouse, Francia.

Title: Anisotropic harmonic maps and Ginzburg-Landau type relaxation.

Abstract: Consider maps $u: \mathbb{R}^n \rightarrow \mathbb{R}^k$ with values constrained in a fixed submanifold, and minimizing (locally) the energy $E(u) = \int W(|\nabla u|)$. Here W is a positive definite quadratic form on matrices.

Compared to the isotropic case $W(|\nabla u|) = |\nabla u|^2$ (harmonic maps) this may look like a harmless generalization, but the regularity theory for general W 's is widely open. I will explain why, and describe results with Andres Contreras on a relaxed problem, where the manifold-valued constraint is replaced by an integral penalization.

Jueves 18 de Marzo del 2021 a las 4:15pm

<https://uchile.zoom.us/j/84928320270?pwd=WkJUTGZqTVM3bGdXTzZZV3JpbkRRZz09>

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