

Closure of the set of diffusion functionals with respect to the Mosco-convergence.

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Abstract

This talk will focus on the characterization of the functionals which are Mosco-limits, in the $L^2(\Omega)$ topology, of some sequence of functionals of the kind

$$F_n(u) := \int_{\Omega} \alpha_n(x) |\nabla u(x)|^2 dx ,$$

where Ω is a bounded domain of \mathbb{R}^N ($N \geq 3$). It is known that this family of functionals is included in the closed set of Dirichlet forms. Here, I prove that the set of Dirichlet forms is actually the closure of the set of diffusion functionals.