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First-order homogenization

Thursday, 26 February 2026 14:15 (20 minutes)

In this talk, we provide a first-order homogenization result for quadratic functionals via a variational approach. In particular, we identify the scaling of the energy and the explicit form of the limiting functional in terms of the first-order correctors. The main novelty of the paper is the use of the dual correspondence between quadratic functionals and PDEs, combined with a refinement of the classical Riemann-Lebesgue Lemma. This is the joint work with Riccardo Cristoferi (Radboud University).

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