







Lothar-Collatz-Seminar

Thu, 06. February · 11:00 · Geom 433

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On the minima of linear-growth variational integrals with measures

Abstract:

In this talk we consider functionals with linear growth in the gradient variable, along with an integral term with respect to a (possibly signed) Radon measure on bounded subsets of \mathbb{R}^n . Relying on a generalized parametric lower-semicontinuity result, we provide necessary and sufficient conditions for the existence of BV-minimizers, and discuss typical examples as well as limit cases. Moreover, we link functional minima to divergence-measure vector fields employing a refined version of the Anzellotti pairing between measures and functions. Further advantages of the dual approach include the introduction of a formal definition of solutions to the Euler-Lagrange equation corresponding to the original functional.

For further information please contact

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