

DIPARTIMENTO DI SCIENZE MATEMATICHE, FISICHE E INFORMATICHE

SEMINARIO

Daniele Valtorta (Università di Milano Bicocca) Mercoledì **20 Novembre 2024**, ore **16.30**

Aula A, Plesso di Matematica

AnaGrAM - Analysis, Geometry, and Algebra Meetings

Energy Identity for Stationary Harmonic Maps

We present the proof for Energy Identity for stationary harmonic maps. In particular, given a sequence of stationary harmonic maps weakly converging to a limit with a defect measure for the energy, then m-2 almost everywhere on the support of this measure the density is the sum of energy of bubbles. This is equivalent to saying that annular regions (or neck regions) do not contribute to the energy of the limit.

This result is obtained via a quantitative analysis of the energy in annular regions for a fixed stationary harmonic map. The proof is technically involved, but it will be presented in simplified cases to try and convey the main ideas behind it.

This is a joint work with Aaron Naber: https://arxiv.org/abs/2401.02242

Organizzatori: Paolo Baroni, Cristiana De Filippis

