

Stability of singularities of minimizing harmonic maps

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Abstract

Minimizing harmonic maps – i.e., maps into a fixed manifold that minimize the Dirichlet energy – are known to be smooth outside a singular set of codimension 3. Here, we consider maps into the standard sphere \mathbb{S}^2 and investigate how the singular set is affected by small perturbations of the prescribed boundary map. We show a simple stability result in which the singularities of two minimizing maps are compared using the Wasserstein distance. The talk is based on joint work with Katarzyna Mazowiecka and Armin Schikorra.