

Harmonic maps in singular spaces

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Abstract: The connection between harmonic maps and representations of discrete groups has been studied extensively in recent years. A harmonic map is classically defined between Riemannian manifolds and is a critical point of the energy functional. The seminal work of Gromov and Schoen on p -adic rigidity initiated the study of harmonic maps in the singular setting. The main topic of this talk will be harmonic maps from a Riemannian complex to metric spaces of non-positive curvature. We discuss existence and regularity issues as well as the application to rigidity problems in geometric group theory.