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Chikako Mese* (cmes@conncoll.edu), 270 Mohegan Ave., Box 5657, New London, CT 06320,
and **Georgios Daskalopoulos** (daskal@math.brown.edu). *Harmonic maps from a 2-complex.*

We investigate the regularity of a harmonic map from a 2-complex to a \mathbf{R} -tree. The motivation for considering the harmonic map theory in this setting is to introduce tools of analysis to study problems arising in combinatorial group theory. Given a finitely presented group Γ acting on a \mathbf{R} -tree T , there exists a 2-complex X with fundamental group Γ and an equivariant harmonic map f from its universal cover \tilde{X} into T . We discuss the Hopf differential of f as well as the foliation on X defined by it. (Received February 26, 2004)