

Extended Harmonic Mappings and Euler-Lagrange Equations

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Abstract

Via Euler-Lagrange equations, we introduce an extended harmonic mapping, which can be regarded as a natural extension of harmonic mapping. Thus we give an example of extended harmonic CMC-H immersion. By using the conservation laws with respect to the Hamiltonians, we investigate a certain geometric relationship between an extended harmonic mapping and a harmonic mapping.