Harmonic Morphisms

Marina Ville
Ecole Polytechnique

April 6, 2000

102 Bradley Hall, 4:00 pm

(Tea 3:30 pm Math Lounge)

Abstract

A harmonic morphism $F : M \longrightarrow N$ between two riemannian manifolds M and N is a map which pulls back local harmonic functions on N to local harmonic functions on M. Although the problem was posed by Jacobi in 1848, the systematic study of these objects only began in the 1980's. After a general overview, we will concentrate on the case where N is two-dimensional: then f yields a (singular) foliation of M by minimal submanifolds.

This talk should be accessible to general faculty.