



Department of Mathematics
The Chinese University of Hong Kong

數學系
香港中文大學

Phone: (852) 3943 7988 / 3943 7989 • Fax: (852) 2603 5154 • Email: dept@math.cuhk.edu.hk
Rm. 220, Lady Shaw Building, The Chinese University of Hong Kong, Shatin, N.T., Hong Kong

Seminar

Lipschitz Regularity of Harmonic Maps between Alexandrov Spaces

Professor Huichun Zhang
Sun Yat-sen University

Abstract: Alexandrov spaces are singular metric spaces with generalized lower or upper bounds of sectional curvature via Toponogov's triangle comparison theorem. In 1992, to study the p -adic superrigidity for lattices in groups of rank one, M. Gromov and R. Schoen developed a theory of harmonic maps from smooth manifolds into nonpositively curved singular spaces.

In 1997, J. Jost and F. H. Lin proved that every harmonic map from an Alexandrov space with curvature bounded from below to a non-positive curvature (NPC) metric space is locally Hölder continuous. Based on Gromov-Schoen's and Korevaar-Schoen's results, F. H. Lin also conjectured that the Hölder continuity can be improved to Lipschitz continuity. J. Jost also asked a similar problem. In this talk, we will introduce a resolution to this Lin's problem. This is a joint work with Prof. Xi-Ping Zhu.

Date: Monday, 22 August 2016
Venue: Rm 222, Lady Shaw Building,
The Chinese University of Hong Kong, Shatin
Time: 2:00 p.m. – 3:00 p.m.

All are Welcome!