THE HONG KONG UNIVERSITY OF SCIENCE & TECHNOLOGY

Department of Mathematics

SEMINAR ON PURE MATHEMATICS

Rigidity of contracting map using harmonic map heat flow

by

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Abstract

In this talk, we are going to consider the rigidity of map between possibly curved closed manifolds, which is motivated by the recent work of Tsai-Tsui-Wang. We show that distance non-increasing map between complex projective spaces is either an isometry or homotopically trivial. The rigidity result also holds on a wider class of manifolds with positive curvature and weaker contracting property on the map in between distance non-increasing and area non-increasing. This is based on the harmonic map heat flow and it partially solves a Conjecture of Tsai-Tsui-Wang. This is a joint work with Prof. Man-Chun Lee.

Date : **24 August 2023 (Thursday)**

Time : **3:00pm**

Venue : **Room 4503 (Lifts 25-26)**

All are Welcome!