



香港浸會大學
HONG KONG BAPTIST UNIVERSITY

Department of Mathematics
Joint Research Institute for Applied Mathematics

Distinguished Lecture Series

The Extremal Kahler Metrics on Toric Manifolds



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Date: 14 February 2012 (Tuesday)

Time: 11:30 am - 12:30 pm (Preceded by Reception at 11:00 am)

Venue: SCT909, Cha Chi-ming Science Tower,
Ho Sin Hang Campus,
Hong Kong Baptist University

Abstract

We study the prescribed scalar curvature problem on toric manifolds. We will show that the uniform stability introduced by Donaldson is a necessary condition for existing a smooth solution for any dimension n . For the case $n = 2$ we prove that this condition is also sufficient. More precisely, we prove the following theorem:

Theorem Let M be a compact toric surface and Δ be its Delzant polytope. Let $K \in C^\infty(\bar{\Delta})$ be an edge-nonvanishing function. If (M, K) is uniformly stable, then there is a smooth T^2 -invariant metric on M that solves the Abreu equation.

This talk is based on the joint works with Bo-hui Chen and Li Sheng

✦ ✦ ✦ **All are welcome** ✦ ✦ ✦

For enquires please contact Ms. Claudia Chui, 3411 2348.

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