The Hong Kong University of Science and Technology

Department of Mathematics

<u>Seminar on Pure Mathematics</u>

Instantaneously complete Chern-Ricci flow and Kahler-Einstein metrics

by

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<u>Abstract</u>

In this talk, we study the Chern-Ricci flow on complete non-compact Hermitian manifold with "negative first Chern class" (We will give the definition in the talk). Under certain general conditions (the initial metric may be incomplete or with unbounded curvature or even only an nonnegative Hermitian form), we prove the flow can be instantaneously complete and has a long-time solution converging to a complete negative Kahler-Einstein metric. In general, we can not conclude the flow tends to the initial metric smoothly and locally, we also discuss conditions so that this is true. These works are joint with Man-Chun Lee and Professor Luen-Fai Tam.

Date: **Friday, 2 August 2019**
Time: **3:00p.m. - 4:00p.m.**
Venue: **Room 3494, Academic Building (near Lifts 25-26), HKUST**

All are welcome!