

THE UNIVERSITY



OF HONG KONG

*Institute of Mathematical Research  
Department of Mathematics*

## **GEOMETRY SEMINAR**

# **Embedding property of $J$ -holomorphic maps in Calabi-Yau manifolds for generic $J$**

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### **Abstract**

In this talk, we prove that for a generic choice of tame (or compatible) almost complex structure  $J$  on a symplectic manifold  $M$  with real dimension no less than 6 and with its first Chern class  $c_1 = 0$ , all somewhere injective  $J$ -holomorphic maps from any closed smooth Riemann surface into  $M$  are embedded. We derive this result as a consequence of the general optimal 1-jet evaluation transversality result of  $J$ -holomorphic maps in general symplectic manifolds. Time permitted, I will also mention some generalizations to high-jet transversality.

**Date: September 22, 2009 (Tuesday)**

**Time: 3:00 - 4:00pm**

**Place: Room 210, Run Run Shaw Bldg., HKU**

*All are welcome*