

THE UNIVERSITY



OF HONG KONG

*Institute of Mathematical Research  
Department of Mathematics*

## **GEOMETRY SEMINAR**

# **Stability Conditions and Fourier-Mukai Transforms on Higher Dimensional Elliptic Fibrations**

**Professor Wu-yen Chuang**  
National University of Taiwan

Date: April 1, 2014 (Tuesday)

Time: 4:00 – 5:00pm

Venue: Room 210, Run Run Shaw Bldg., HKU

### **Abstract**

Fourier-Mukai transform is a useful method to study moduli problems on a variety  $X$  in terms of moduli on the *FM* partner  $Y$ . Many results in this direction are about moduli of sheaves on the both sides. In this talk we will discuss new polynomial stability conditions on higher dimensional elliptic fibrations and identify the criteria under which 2-term polynomial semistable complexes are mapped to torsion-free semistable sheaves under a FM transform. This is a joint work with Jason Lo.

*All are welcome*