### THE UNIVERSITY



#### OF HONG KONG

# Institute of Mathematical Research Department of Mathematics

# **Number Theory Seminar**

# Breuil-Kisin modules and integral *p*-adic Hodge theory

## Dr. Hui Gao

Southern University of Science and Technology, China

#### **Abstract**

We construct a category of Breuil-Kisin  $G_K$ -modules to classify integral semi-stable Galois representations. The theory can be regarded as the algebraic avatar of the integral p-adic cohomology theories of Bhatt-Morrow-Scholze and Bhatt-Scholze.

Date: November 23, 2021 (Tuesday)

Time: 4:30 – 5:30pm (Hong Kong Time)

Venue: ZOOM: https://hku.zoom.us/j/

Meeting ID: 999 0463 7074

Password: 483015

All are welcome