

THE UNIVERSITY



OF HONG KONG

*Institute of Mathematical Research
Department of Mathematics*

GEOMETRY SEMINAR

Introduction to Chromatic Homotopy

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Abstract

Chromatic homotopy theory is an approach to algebraic topology based on Quillen's fundamental theorem connecting complex cobordism with the algebraic theory of formal groups, the classification of formal groups over algebraically closed fields by an integer invariant called the height, and a network of related conjectures proposed by Ravenel in 1984. Most of the conjectures were proved by Hopkins, Devinatz and Smith in the 1980s. People have long suspected that the last remaining conjecture was false, but it was only finally disproved in the summer of 2023 by Burklund, Hahn, Levy and Schlank, as the culmination of a period of rapid progress across many fronts. In this talk I will give an introduction to chromatic homotopy, with a few words about recent advances.

Date:	January 8, 2024 (Monday)
Time:	4:00 - 5:00pm
Venue:	Rm 210, Run Run Shaw Bldg., HKU

All are welcome