



THE CHINESE UNIVERSITY OF HONG KONG
Department of Physics
SEMINAR

Higher Berry Curvature and Its Quantization

by

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Date: July 5, 2023 (Wednesday)

Time: 3:00 - 4:00 p.m.

Place: Rm G26, Science Centre North Block, CUHK

ALL INTERESTED ARE WELCOME

Abstract

I will explain how to attach topologically protected quantities to gapped lattice systems with parameters. These quantities generalize the Berry curvature to the many-body context and thus are called higher Berry classes. In some special cases higher Berry classes reduce to the Hall conductance and its nonabelian generalizations. Quantization of Hall conductance can thus be explained by quantization of the higher Berry classes.