



THE HONG KONG UNIVERSITY OF SCIENCE & TECHNOLOGY

Department of Mathematics

SEMINAR ON PURE MATHEMATICS

**The p -rank stratification of the moduli space of
double covers of a fixed elliptic curve**

by

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Abstract

We study the p -rank stratification of the moduli space of curves of genus g that admit a double cover to a fixed elliptic curve E in characteristic $p > 2$. We prove that the closed p -rank strata of this moduli space are equidimensional of the expected dimension. Moreover, we show that for each possible value of the p -rank, there exists a smooth double cover of E realizing that value.

Date : 24 September 2025 (Wednesday)

Time : 4:00p.m.- 5:00p.m.

Join Zoom Meeting

<https://hkust.zoom.us/j/97146202629?pwd=kXKgdDmwoRchFZOrNup696SAWQIRmi.1>

Meeting ID: 971 4620 2629

Passcode: 322024

All are Welcome!