



THE HONG KONG UNIVERSITY OF SCIENCE & TECHNOLOGY

Department of Mathematics

PHD STUDENT SEMINAR

Riemann-Roch theorem and algebraic curves

By

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Abstract

Riemann-Roch theorem provides a powerful tool to study curves. In this talk, following Hartshorne, Riemann-Roch theorem and Hurwitz's theorem is reviewed. Then the embedding of curves in projective spaces and classification of elliptic curves is studied based on these tools. Finally, as a generalized form of Riemann-Roch theorem, Grothendieck-Riemann-Roch theorem is presented and we use it to calculate several examples.

Date : 8 May 2024 (Wednesday)

Time : 3:00pm

Venue : Room 2405 (Lifts 17-18)

All are Welcome!