

THE UNIVERSITY



OF HONG KONG

*Institute of Mathematical Research
Department of Mathematics*

COLLOQUIUM

Geometry and syzygies of algebraic varieties

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Abstract

In this talk, I would like to give a survey on a body of work centered around the geometry and syzygies of algebraic varieties. In the early 1980s, there were two important developments in this area. First as computer assisted computation began to be practical, Castelnuovo-Mumford regularity came into focus as a measure of algebraic complexity. Also Mark Green introduced new techniques to reduce calculation of syzygies to questions about vector bundles. He also introduced several important conjectures relating the geometry and syzygies of algebraic curves. We'll discuss some of the recent developments on these conjectures.

Date:	March 26, 2025 (Wednesday)
Time:	4:00 - 5:00pm
Venue:	Rm 210, Run Run Shaw Bldg., HKU

All are welcome