

THE UNIVERSITY



OF HONG KONG

*Institute of Mathematical Research*

*Department of Mathematics*

## MINI COURSE

# Hilbert schemes

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### Abstract

Let  $X$  be a projective variety, The Hilbert scheme of  $X$  is the moduli space of closed subvarieties (subschemes) of  $X$ . We discuss some geometric properties of the Hilbert schemes and give some applications of Hilbert schemes to the syzygies of algebraic varieties.

Lecture 1:	January 6, 2015 (Tuesday) 4:00 – 5:30pm
Lecture 2:	*January 7, 2015 (Wednesday) 4:00 – 5:30pm

**Room 210, Run Run Shaw Bldg., HKU**

*\*Tea is served at 3:30pm in Room 320A*

*All are welcome*