

SHIMURA VARIETIES COURSE.

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- (1) Modular and Shimura curves.

Classical definition, definition involving Shimura data, modular interpretation, canonical model.

- (2) Basics on linear Algebraic groups.

Definitions, examples, reductive groups, tori.

- (3) Hodge structures and Mumford Tate groups.

Symmetric spaces : examples.

- (4) Definition of Shimura varieties (over complex numbers, as double coset spaces).

Basic example: Siegel modular variety.

- (5) Complex multiplication and special points. Reciprocity map.

- (6) Definition of the reflex field, of a canonical model.

Basic example : \mathcal{A}_g over \mathbb{Q} .

- (7) Outline of the proof of uniqueness of the canonical model.

Basic reference: J. Milne “Introduction to Shimura varieties” available on author’s web-page.