

Seminar on quadratic forms, Fall 2018

Syllabus

I—Finite fields (1—Generalities, 2—Equations over finite fields, 3—Quadratic reciprocity law).

II— p -adic fields (1—The ring \mathbf{Z}_p and the field \mathbf{Q}_p , 2— p -adic equations, 3—The multiplicative group of \mathbf{Q}_p).

III—Hilbert symbol (1—Local properties, 2—Global properties).

IV—Quadratic forms over \mathbf{Q}_p and over \mathbf{Q} (1—Quadratic forms, 2—Quadratic forms over \mathbf{Q}_p , 3—Quadratic forms over \mathbf{Q}).