

Research project **PB**
Pairings via biextensions

Supervisor 1 David Harari

E-mail `david.harari@math.u-psud.fr`

Institution Université Paris Sud 11

Supervisor 2 Luca Barbieri Viale

E-mail `Luca.Barbieri-Viale@unimi.it`

Institution Università degli studi di Milano

Research project short description:

The starting point is to read the articles in the references.

References:

B. Mazur, J. Tate: *Canonical height pairings via biextensions*, Arithmetic and geometry, Vol. I, 195–237, Progr. Math., 35, Birkhauser Boston, Boston, MA, 1983.

D. Harari, T. Szamuely: *Arithmetic duality theorems for 1-motives*, J. Reine Angew. Math. 578 (2005), 93–128.