

SPEAKER: Umberto Zannier (Scuola Normale Superiore di Pisa)

TITLE: Hilbert Irreducibility above algebraic groups

ABSTRACT: We shall discuss some versions of Hilbert Irreducibility Theorem, concerning the lifting of rational points from certain commutative algebraic groups to covers of them. The proofs use a new method which works essentially by first considering maximal cyclotomic extensions and then descending the field with Chebotarev Theorem. We deal explicitly with multiplicative tori and powers of an elliptic curve (but the method in principle could work more generally). We shall also offer an application to a version of Bertini Theorem for multiplicative tori in place of linear spaces.