Séminaire de théorie des nombres Le 15 mai 2017 à 14h (PRG)

Pell equations in polynomials and integration in finite terms

Exposé de Umberto Zannier (Scuola Normale Superiore di Pisa)

Résumé: In this talk we shall consider Pell equations in C[t]; the matter goes back to Abel, who studied this in 1826, also in connection with the integration in 'finite terms' of hyperelliptic differentials. We shall present some fairly recent finiteness results concerning pencils of such equations, and their relation with the integration in finite terms of differentials in a pencil. This whole work is in collaboration with David Masser.