Séminaire de théorie des nombres

Le 10 mai à 14h

Quadratic Diophantine equations and class numbers

Exposé de Goro Shimura

Résumé : Gauss showed that the number of primitive representations of an integer as sums of 3 squares is a simple factor times the class number of binary forms of a fixed discriminant. We present a general principle on a quadratic form of n variables that connects a primitive representation of an integer by the form to a class of an orthogonal group in dimension $n-1$. The case of 3 squares is an easiest example.