

Jean-Morlet Chair - Conference
Arithmetic Statistics - Statistiques arithmétiques

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Title: *Counting D_4 quartic extensions of a number field ordered by discriminant*

Abstract: A guiding question in number theory, specifically in arithmetic statistics, is counting number fields of fixed degree and Galois group as their discriminants grow to infinity. We will discuss the history of this question and take a closer look at the story in the case of quartic fields. In joint work with Florea, Serrano Lopez, and Varma, we extend and make explicit the counts of extensions of an arbitrary number field that was done over the rationals by Cohen, Diaz y Diaz, and Olivier.