

Jean-Morlet Chair - Conference
Arithmetic Statistics - Statistiques arithmétiques

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Title: *On the minimal degree of a torsion point of prime-power order on an elliptic curve over \mathbb{Q}*

Abstract: In this talk we will discuss an application of recent work on the classification of ℓ -adic images of Galois representations attached to elliptic curves. In particular, we will show sharp lower bounds on the degree of the minimal field of definition of a torsion point (resp. torsion structure) of prime-power order for an elliptic curve over \mathbb{Q} , together with explicit examples that attain the exact bound.

This is joint work with Enrique González-Jiménez.