



Seminário do Grupo de Álgebra e Geometria

Computing Inertial Types of Elliptic Curves

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Resumo

Let p be prime and F/\mathbb{Q}_p be a finite extension with algebraic closure \overline{F} . We denote the Weil group of F by $W_F \subset \text{Gal}(\overline{F}/F)$ and we write $I_F \subset W_F$ for its inertia subgroup. Given a representation $\rho : W_F \rightarrow \text{GL}_2(\mathbb{C})$, we will call the restriction $\tau := \rho|_{I_F}$ an inertial type.

In this talk I will present a joint work with Nuno Freitas and Enric Florit in which we completely classify the inertial types arising from elliptic curves over F , a finite extension of \mathbb{Q}_p . Based on this classification, we give a fully explicit description of the types and implement an algorithm that computes all inertial types of elliptic curves defined over a given F .

Detalhes do Seminário

- **Data:** 28 de maio de 2026
- **Hora:** 11:00 – 12:00
- **Local:** Sala Sousa Pinto

Este seminário é suportado pelo CIDMA ao abrigo do Programa de Financiamento Pluri-anual de Unidades de I&D da Fundação para a Ciência e a Tecnologia (FCT, <https://ror.org/00snfq58>), referências UID/04106/2025 (<https://doi.org/10.54499/UID/04106/2025>) e UID/PRR/4106/2025.

