

## **Sato-Tate groups of abelian threefolds**

Francesc Fité, IAS

The Sato-Tate group of an abelian variety  $A$  of dimension  $g$  defined over a number field is a compact real Lie subgroup of the unitary symplectic group of degree  $2g$  that conjecturally governs the limiting distribution of the normalized Frobenius elements in the Tate module of  $A$ . In previous joint work with Kedlaya, Rotger and Sutherland, it was shown that there are 52 groups (up to conjugation) that occur as Sato-Tate groups of abelian surfaces over number fields. In this talk I will present a classification of Sato-Tate groups of abelian threefolds over number fields based on ongoing work with Kedlaya and Sutherland.