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The vertical Sato-Tate conjecture

The Sato-Tate conjecture predicts the statistical distribution of the number of points mod p (as the prime p varies) on a fixed elliptic curve E . The vertical Sato-Tate conjecture concerns the case where p is fixed and E varies.

In joint work with Michael Woodbury we can prove the vertical Sato-Tate conjecture for some high rank generalizations.