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Title: *Complete verification of the strong BSD conjecture for some absolutely simple modular abelian surfaces*

Abstract: The strong Birch–Swinnerton-Dyer conjecture and in particular the exact order of the Shafarevich–Tate group for abelian varieties over the rationals has only been known for elliptic curves or in higher dimension where the conjecture could be reduced to dimension 1. We give the first absolutely simple examples of dimension 2 where the conjecture can be completely verified. We will also give some indications of how to extend our work to modular abelian varieties over totally real fields.

This is joint work with Michael Stoll.