

These are the PI's most relevant publications. They are on Sage or use Sage extensively for applications to education and research in number theory.

Most Relevant Publications

- *Elementary Number Theory: Primes, Congruences, and Secrets* (166 pages), Undergraduate Texts in Mathematics (Springer-Verlag), 2009. (Extensively uses Sage.)
- *Opinion: Open Source Mathematical Software* (2007), Notices of the AMS, **54**, no. 10.
- *Explicitly Computing Modular Forms* (284 page), Graduate Studies in Mathematics (AMS), 2007, with an appendix by Paul Gunnells. (Extensively uses Sage.)
- *Verification of the Birch and Swinnerton-Dyer Conjecture for Specific Elliptic Curves*, with G. Grigorov, A. Jorza, S. Patrikis, and C. Patrascu (26 pages), 2009, to appear in Mathematics of Computation.
- *Average Ranks of Elliptic Curves: Tension Between Data and Conjecture*, with B. Bektemirov, B. Mazur, W. Stein, and M. Watkins, Bulletins of the AMS (2006).
- *Visible Evidence for the Birch and Swinnerton-Dyer Conjecture for Rank 0 Modular Abelian Varieties* (31 pages), with A. Agashe, Math. of Comp.

Other Relevant Publications

- *Studying the Birch and Swinnerton-Dyer Conjecture for Modular Abelian Varieties Using Magma* (22 pages), chapter in the Springer-Verlag book "Computational Experiments in Algebra and Geometry".
- *The Modular Degree, Congruence Primes and Multiplicity One*, with A. Agashe and K. Ribet (16 pages), 2005, Documenta Math.
- *Computation of p -Adic Heights and Log Convergence*, with B. Mazur and J. Tate (36 pages), 2006, Documenta Mathematica.
- *Shafarevich-Tate Groups of Nonsquare Order*, Progress in Math., **224** (2004), 277–289, Birkhauser.
- *Constructing Elements in Shafarevich-Tate Groups of Modular Motives*, (19 pages) with N. Dummigan and M. Watkins, "Number theory and algebraic geometry—to Peter Swinnerton-Dyer on his 75th birthday", Ed. by M. Reid and A. Skorobogatov.