Philadelphia Area Number Theory Seminar

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On the Paramodular Conjecture for certain abelian surfaces with rational torsion

Abstract: The famous Taniyama–Shimura conjecture predicts the existence of a one-to-one correspondence between isogeny classes of elliptic curves over $\mathbb{Q}$ and certain modular forms of weight 2. The Paramodular Conjecture postulates the existence of a similar correspondence between certain abelian surfaces and certain (Siegel) modular forms. While the Taniyama–Shimura Conjecture is now a theorem (due to Wiles, Taylor et al.), the Paramodular Conjecture is not only (wide) open, but even the amount of verified examples is humbling, to say the least. We will discuss the conjecture as well as a recent progress in the case of abelian surfaces that possess rational torsion. This is joint work with T. Berger.

Wednesday, December 6, 2017
2:40 – 4:00 PM

Bryn Mawr College
Department of Mathematics
Park Science Center **337**
Tea and refreshments at 2:20PM in Park 339