

Philadelphia Area Number Theory Seminar

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Polynomial identities between Hecke eigenforms

Abstract: This talk will focus on polynomial identities between Hecke eigenforms. In particular we will show that assuming Maeda's conjecture, then all solutions to the equation $X^2 = \sum a_i Y_i$ in terms of Hecke eigenforms for $SL_2(\mathbb{Z})$ are forced by dimension considerations. Our proof uses Galois theory for the eigenvalues of the Hecke operators acting the space of cusp forms for $SL_2(\mathbb{Z})$. We will also talk about how this is related with nonvanishing of certain L -series and the case for the congruence subgroups.

Wednesday, April 12, 2017
2:40–4PM

Bryn Mawr College
Department of Mathematics
Park Science Center **328**

Tea and refreshments at 2:20PM in Park 355