

# Philadelphia Area Number Theory Seminar

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## Hyperbolic Fourier expansions of modular forms and hyperbolic Poincaré series

**Abstract:** In (1941), Petersson gave a uniform treatment of parabolic, hyperbolic and elliptic Poincaré series. Petersson was the first to give, the now classical, expression for the Fourier coefficients of Poincaré series as a special value of a Dirichlet series involving Kloosterman sums and Bessel functions. In the classical case, both the Fourier series and the Poincaré series are relative to a parabolic element. In this talk, we discuss hyperbolic Fourier expansions and hyperbolic Poincaré series in  $SL_2(\mathbb{Z})$ .

Wednesday, February 11, 2015

2:40–4:00PM

Bryn Mawr College

Department of Mathematics

Park Science Center **328**

Tea and refreshments at 2:20PM in Park 355