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**William Duke\*** (wdduke@ucla.edu). *The Fourier coefficients of harmonic Maass forms of weight one.*

In this talk I will report on joint work with Yingkun Li on some arithmetic properties of the Fourier coefficients of harmonic modular forms of weight one. These are Maass forms of weight one whose eigenvalue under the Laplacian is 0 and that are allowed to have polar-type singularities in the cusps. We show that in some cases they are connected to the Galois representations associated to newforms of weight one. (Received September 24, 2012)