Thomas Hulse, Mehmet Kiral, Chan Ieong Kuan and Li-Mei Lim*
(llim@simons-rock.edu). Counting Square Discriminants.

Hee Oh and Nimish Shah prove that the number of integral binary quadratic forms whose coefficients are bounded by a quantity $X$, and with discriminant a fixed square integer $d$, is $cX\log X + O(X(\log X)^{3/4})$. This result was obtained by the use of ergodic methods. Here we use the method of shifted convolution sums of Fourier coefficients of certain automorphic forms to obtain a sharpened result of a related asymptotic, obtaining a second main term and an error of $O(X^{1/2})$. (Received September 05, 2014)