

SCHOLAR
UNE CÉLÉBRATION SCIENTIFIQUE SOULIGNANT LES LIGNES OUVERTES DE LA RECHERCHE MATHÉMATIQUE EN
L'HONNEUR DE L'HÉRITAGE MATHÉMATIQUE DU P^R M. RAM MURTY À L'OCCASION DE SON 60^E ANNIVERSAIRE
15 AU 17 OCTOBRE 2013

SCHOLAR
A SCIENTIFIC CELEBRATION HIGHLIGHTING OPEN LINES OF ARITHMETIC RESEARCH IN
HONOUR OF PROFESSOR M. RAM MURTY'S MATHEMATICAL LEGACY ON HIS 60TH BIRTHDAY
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The spin of prime ideals

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Fixing a nontrivial automorphism of a number field K , we associate to ideals in K an invariant (with values in $\{0, \pm 1\}$) which we call the spin. Using the techniques of bilinear forms, we derive the spin value equidistribution over primes with a power saving in the error term. We apply the theorem to the arithmetic statistics of Selmer groups of elliptic curves.

This is joint work with H. Iwaniec, B. Mazur and K. Rubin.

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