

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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Square values of Euler's function

Carl Pomerance*

carl.pomerance@dartmouth.edu

WEB: www.math.dartmouth.edu/~carlp

Euler's function, ubiquitous in number theory, has been studied as an arithmetic function for a long time. We know it's average to x fairly well, we know it's distribution, and we know a lot about the frequency of integers (called totients) which are values of Euler's function. This talk concerns square totients. It is perhaps surprising that up to x there are many more integers that Euler's function maps to a square than there are squares themselves. However, are most squares totients? Surely the answer should be "no" and in this paper we prove this. Perhaps there is an easier path, but our proof is surprisingly difficult.

Joint work with Paul Pollack

*Department of Mathematics, Dartmouth College, Hanover, NH 03755-3551, USA