Algebra & Number Theory Seminar

Thursday, November 5, 2009

4:00 pm in Hume 331

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Sums of two Squares and Almost Squares

ABSTRACT

Sums of two squares are integers of the form $n = a^2 + b^2$. Almost squares are integers of the form $n = ab$ where a and b are close to each other. In this talk, we will discuss the following question: what are the nearest sums of two squares and almost squares to any given positive real number α? This turns out to be related to the distribution of $n^2 \alpha \pmod 1$.