$\mathbf{T}_{\text{EMPLE}} \; \mathbf{U}_{\text{NIVERSITY}} \; \mathbf{M}_{\text{ATHEMATICS}} \; \mathbf{C}_{\text{OLLOQUIUM}}$

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will speak on

Character sums, large and small

ABSTRACT: Character sums, which encode the behavior of primes in arithmetic progressions, have played a central role in number theory ever since the work of Gauss on quadratic reciprocity. Although they are still quite mysterious, there have been several breakthroughs during the past five years. In this talk, I will introduce and motivate character sums, and discuss what we know (and don't know) about them.

> Monday, September 24, 2012 Lecture at 4:00 pm Coffee, tea, and refreshments from 3:40 pm Room 617, Wachman Building Department of Mathematics