

College of Arts & Sciences
Department of Mathematical Sciences

Colloquium

Dr. Theresa C. Anderson

Purdue University

Thursday November 29th 2018
Room 140, 60 West Charlton
4:00 – 5:00 pm

The Spherical Maximal Function along the primes

Many problems at the interface of analysis and number theory involve showing that the primes, though deterministic, exhibit random behavior. The Green-Tao theorem stating that the primes contain infinitely long arithmetic progressions is one such example. In this talk, we show that prime vectors equidistribute on the sphere in the same manner as a random set of integer vectors would be expected to. We further quantify this with explicit bounds for naturally occurring maximal functions, which connects classical tools from harmonic analysis with analytic number theory. This is joint work with Cook, Hughes, and Kumchev..

Refreshments will be served 3:15 – 3:45 pm in the Faculty & Graduate Student Lounge Room 4118 French Hall West