



Colloquium

October 11, 4:05 p.m. (9th Period)
(in the Atrium)

Speaker: Connor Morrow

Title: Congruences mod powers of 5 for Andrews's even parts below odd parts partition function (Joint work with Dr. Garvan).

Abstract

We prove congruences mod powers of 5 for George Andrews's partition function, $\overline{\mathcal{EO}}(n)$, the number of partitions of n in which every even part is less than each odd part and the largest even part occurs an odd number of times. This function is related to Ramanujan's third order mock theta function $\nu(q)$. The result is equivalent to Shane Chern's result for 1-shell totally symmetric plane partitions. Using Atkin-Lehner involutions, we show equivalence with Dohoon Choi, Soon-Yi Kang, and Jeremy Lovejoy's congruences for the crank parity function.