

Philadelphia Area Number Theory Seminar

Alexander Jason Dunn

University of Illinois at Urbana-Champaign

Partition asymptotics and the polylogarithm

Abstract: In 2015, Vaughn obtained asymptotic formulas for the number of partitions of an integer into squares. Gafni extended this to k th powers.

Here we obtain such formulas for the number of partitions into values of an arbitrary integer polynomial f subject to some mild hypotheses.

Our methods use an interplay of the circle method, the polylogarithm, and the Matsumoto–Weng zeta function. This is joint work with Nicolas Robles.

Wednesday, April 25, 2018

2:40 – 4:00 PM

Bryn Mawr College

Department of Mathematics

Park Science Center **328**

Tea and refreshments at 2:20PM in Park 339