Fall 2018 Undergraduate Seminar
Department of Mathematics

What are Robbins' conjectures for cyclic hyperbolic polygons?

Dr. DeBlois

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Date: Tuesday, October 2

Time: 12:00-12:50 pm

Location: Room 703, Thackeray Hall

Jason DeBlois got his B.S. in mathematics from the University of Chicago and his Ph.D. from the University of Texas at Austin. After, he completed two postdoctoral positions at the University of Illinois - Chicago and Stanford before arriving at Pitt. He primarily works on low-dimensional topology and hyperbolic geometry.

Heron and Brahmagupta formulas give the area of triangles and quadrilaterals that are *cyclic* (inscribed in a circle) in terms of their sidelengths. In 1995, David Robbins generalized these to all cyclic n-gons in the form of "Heron polynomials". We know analogs of the classical formulas for polygons in the hyperbolic plane, but not the Heron polynomials. I'll talk on what former Pitt undergrad Lucy Newman and I found while studying this. Pizza and drinks will be provided!

SPEAKER FOR NEXT WEEK:

Dr. Popescu

Organized by: Tom Everest, Derek Orr, Jeff Wheeler, Jeremiah Morgan, and Eugene Trofimov