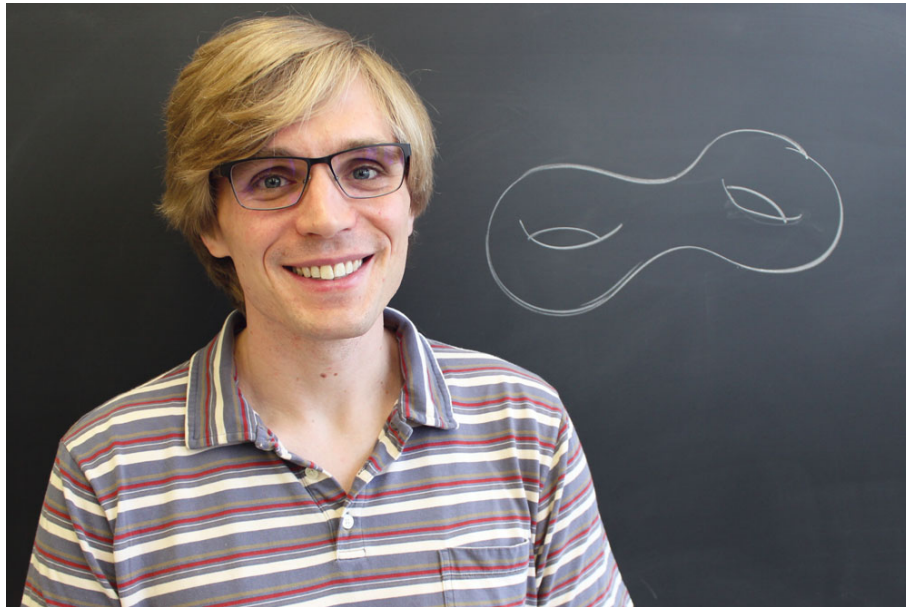


COLLOQUIUM

MATHEMATICS AND STATISTICS
QUEEN'S UNIVERSITY



DYNAMICS, GEOMETRY, AND THE MODULI SPACE OF RIEMANN SURFACES

Abstract. The moduli space of Riemann surfaces of fixed genus is one of the hubs of modern mathematics and physics. We will tell the story of how simple sounding problems about polygons, some of which arose as toy models in physics, became intertwined with problems about the geometry of moduli space, and how the study of these problems in Teichmüller dynamics lead to connections with homogeneous spaces, algebraic geometry, dynamics, and other areas. The talk will mention joint works with Alex Eskin, Simion Filip, Curtis McMullen, Maryam Mirzakhani, and Ronen Mukamel.

Alex Wright (Stanford University)

Alex Wright obtained his Ph.d. in Mathematics from the University of Chicago in 2014. He was awarded the Clay Research Fellowship in 2014, and joined Stanford University as a Visiting Fellow. In 2015, he was also Postdoctoral Fellow at the Mathematical Sciences Research Institute in Berkeley and Member of the Institute for Advanced Study in Princeton. Since 2016, Dr. Wright is Acting Assistant Professor at Stanford University. Other awards received by Alex Wright include the NSERC Julie Payette Award (2008-2009) and the NSERC Postgraduate Scholarship (2009-2012). Dr. Wright's research lies at the intersection of dynamical systems and algebraic geometry, and was published in the most prestigious mathematical journals, including *Annals of Mathematics* and *Inventiones Mathematicae*.

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4:30pm · NOVEMBER 20 · 2017