

Speaker: Alex Eskin

Title: Polygonal billiards and dynamics on moduli spaces of compact Riemann surfaces

Abstract: Billiards in polygons can exhibit some bizarre behavior, some of which can be explained by deep connections to several seemingly unrelated branches of mathematics. These include algebraic geometry (and in particular Hodge theory), Teichmüller theory and ergodic theory on homogeneous spaces. I will attempt to give a gentle introduction to the subject. Much of this lecture will be accessible to undergraduates and first-year graduate students.