

ALGEBRA AND NUMBER THEORY
SEMINAR

Dedekind Sums and Geometry

Mark A. Norfleet
Emory University

Abstract: We will introduce how the geometry of the upper half plane model of the hyperbolic plane can be used to calculate Dedekind sums. Using this geometric perspective, “generalize” Dedekind sums can emerge from the existence of very particular (non-arithmetic) Fuchsian groups sitting inside of $\mathrm{PSL}_2(\mathbb{Q})$. We will conclude by discussing the difficulties in forming an analogue of Dedekind reciprocity and other avenues for further investigation.

Tuesday, September 29, 2015, 4:00 pm
Mathematics and Science Center: W304

MATHEMATICS AND COMPUTER SCIENCE
EMORY UNIVERSITY