Escher did it by instinct. I did it by trigonometry.

—H.S.M. Coxeter

THE TRIVIAL NOTIONS SEMINAR

Hyperbolic Zoology

a talk by

Amanda Burcroff

ABSTRACT

Sometimes mathematics is so beautiful, it deserves to be in an art gallery. The friendship between M.C. Escher and H.S.M. Coxeter made this a reality for the strange world of Coxeter polytopes. Coxeter polytopes are those that tile space via reflections, and their classification is still an ongoing mathematical endeavor. Though the Euclidean and spherical cases are rather tame, the hyperbolic case is where the wild things are. We'll discuss the geometric, algebraic, linear algebraic, and combinatorial structure behind these polytopes while admiring some art. We will also touch upon a few other mathematical connections in Escher's works, including conformal maps and circle inversion.

Monday, February 27, 2023

Lunch: 12:30pm, Clover (Ground Floor)
Talk: 1:30pm, Science Center Hall D