

1135-37-2903

**Subhadip Chowdhury\*** (subhadip@math.uchicago.edu). *Rotation Number, Ziggurat Fringes, and Fractal Boundary.*

In this talk, we discuss some interesting rigidity and rationality properties of Calegari-Walker ziggurats – i.e. the graphs of extremal rotation numbers associated to positive words in free groups. Specifically, we give an explicit formula for fringe length, revealing integral projective self-similarity in Ziggurat fringes, which are low-dimensional projections of characteristic polyhedra on the bounded cohomology of free groups. This explains phenomena observed experimentally by Gordenko, Calegari and Walker. (Received September 26, 2017)