1138-37-378 **Subhadip Chowdhury*** (subhadip@math.uchicago.edu), 5734 S. University Ave., Chicago, IL 60637. *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 acting on the circle. Specifically, we give an explicit formula for fringe length, revealing (partial) integral projective self-similarity in ziggurat fringes, which are low-dimensional projections of characteristic polyhedra on the bounded cohomology of free groups. We also describe some stability results in the interior of the ziggurat and further generalizations to arbitrary words. (Received February 13, 2018)