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**Derrick Wigglesworth\*** ([dwiggles@math.utah.edu](mailto:dwiggles@math.utah.edu)) and **Radhika Gupta**. *Loxodromics for the cyclic splitting complex.*

The outer automorphism group of a finite rank free group,  $\text{Out}(F_n)$ , has strong parallels with the mapping class group of a closed surface and with  $\text{SL}_n(\mathbb{Z})$ . In this talk, I will build on this analogy, discussing some recent results concerning the cyclic splitting complex, which can be thought of as an  $\text{Out}(F_n)$  analog for the curve complex. In particular, I will discuss recent work with R. Gupta in which we use the boundary of the cyclic splitting complex to identify the loxodromic elements for this action. We will also discuss some results which indicate that this action may be acylindrical. (Received September 20, 2017)