

1139-06-111      **Cristóbal Rivas\*** (`crisobal.rivas@usach.cl`), Departamento de Matemáticas, Las Sophoras 173, Estación Central, Santiago, RM, Chile. *No positive cone on a hyperbolic surface group is regular (either)*. Preliminary report.

A positive cone on a group is the set of positive elements in a left-multiplication invariant total order on the group.

It is known that no positive cone in the fundamental group of a hyperbolic surface is finitely generated as a semigroup (Alonso, Brum, Rivas 2017). In this talk, we will follow the work of Hermiller and Sunic (2017) to show that, moreover, no positive cone on a hyperbolic surface group is determined by a finite-state automaton. (Received February 04, 2018)