

## Manhattan Algebra Day

## Jean Pierre Mutanguha

University of Arkansas

Hyperbolic Immersions of Free Groups

Friday, December 7, 2018 CUNY Graduate Center, Science Center

Abstract:

We proved that the mapping torus of a graph immersion is word-hyperbolic if and only if it has no Baumslag-Solitar subgroups. In this talk, we will illustrate how pullbacks and the Bestvina-Feighn combination theorem were used in the proof.