

# ALGEBRA SEMINAR

## *Bourdon's building and complexes of groups*

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ABSTRACT: Bourdon's building is a certain highly symmetric, negatively curved 2-complex built out of right-angled polygons. Its automorphism group is large (uncountable) and remarkably rich. We study, and mostly answer, the question of when there is a discrete subgroup of the automorphism group such that the quotient is a closed surface of genus  $g$ . This involves some fun elementary combinatorics, but quickly leads to open questions in group theory and number theory. This is joint work with Anne Thomas.

MONDAY, APRIL 5, 2010  
1:40 – 2:30 PM  
ROOM 617, WACHMAN HALL  
DEPARTMENT OF MATHEMATICS