

# NUMBER THEORY SEMINAR

## *The $S$ -Euclidean Minimum of an Ideal Class I*

Kevin McGown  
Ursinus College

ABSTRACT: We will show that the  $S$ -Euclidean minimum of an ideal class is a rational number, generalizing a result of Cerri from 2006. We will also give some corollaries and discuss the relationship with Lenstra's notion of a norm-Euclidean ideal class and the conjecture of Barnes and Swinnerton-Dyer on quadratic forms. The proof involves constructing an appropriate compact group and using techniques of Berend from ergodic theory and topological dynamics. No background is necessary other than basic algebraic number theory.

WEDNESDAY, NOVEMBER 7, 2012  
2:40 - 4:00 PM  
ROOM 527 WACHMAN HALL  
DEPARTMENT OF MATHEMATICS