

# ALGEBRA SEMINAR

## *Quantum sheaf cohomology*

Joshua Guffin  
University of Pennsylvania

ABSTRACT: The quantum cohomology of a manifold  $X$  is an algebra that generalizes the intersection product on the ordinary cohomology  $H^*(X, \mathbb{C})$  by taking into account "instanton corrections". In this talk, I will introduce quantum sheaf cohomology, which generalizes sheaf cohomology of a vector bundle  $E \rightarrow X$  via instanton corrections, and give an overview of some computational techniques.

MONDAY, FEBRUARY 28, 2011  
1:40 – 2:30 PM  
ROOM 617, WACHMAN HALL  
DEPARTMENT OF MATHEMATICS