

THE MATHEMATICS DEPARTMENT PRESENTS

# A MATHEMATICS COLLOQUIUM

THURSDAY, October 25, 2007

BOND HALL 227

4:00 pm

**Title: Identifying properties of a ring from its zero divisor graph**

**Speaker: Sandra Spiroff**, Seattle University

**Abstract:** A zero divisor graph of a ring  $R$  is a visual representation of the zero divisor activity in  $R$ . They have been studied by Beck, Anderson & Livingston, Mulay, and Wickham, to name just a few. We continue, using ideas of Mulay, to identify ring theoretic properties from these graphs. In particular, we are interested in the graph of equivalence classes of zero divisors. We will compare and contrast this graph with the original zero divisor graph and discuss some results involving the associated primes of the ring.

Refreshments will precede the talk at 3:30pm in Bond Hall 300  
courtesy of David Hartenstine.