

THE MATHEMATICS DEPARTMENT PRESENTS

A MATHEMATICS COLLOQUIUM

THURSDAY, October 30, 2008

BOND HALL 217

4:00 pm

Title: “It was one of my half-sisters”

Speaker: Amy Anderson, Western Washington University

Abstract: A few years ago, a terrible crime was committed and, in a database search, a woman’s DNA profile was found to match the DNA from the crime scene (presumably the DNA from the culprit). The woman could not have committed the crime, but was known to have sixteen half-sisters. Since relatives have similar DNA profiles, the question was raised as to whether one of the half-sisters might have produced the sample found at the crime scene. The question that was brought to me was “What is the probability that at least one of the woman’s sixteen half-sisters would have a profile that matched that found at the crime scene, given that the woman’s profile matched?” In this talk, I will introduce the mathematics behind making this sort of calculation.

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