

CCSU
DEPARTMENT OF MATHEMATICAL SCIENCES
COLLOQUIUM

Friday, November 8
3:00 – 4:00 PM
Maria Sanford, Room 101

**PROBABILITY OR ODDS?
(CONTINUED...)**

GURBAKHSHASH SINGH

CENTRAL CONNECTICUT STATE UNIVERSITY

Abstract: We continue our adventure into building models for odds and probabilities, with a focus on methods in health and medical sciences. Modeling binary outcomes based on covariates will be discussed. In particular, the use of logistic regression for the estimation of odds and the use of log-binomial (LB) regression for the estimation of probabilities. This talk will start with an introduction to probability and odds, and then bridge to generalized linear models for the estimation of odds and probabilities. Recent articles have noted the inaccurate use and interpretation of odds as a probability, but this also passes to the interpretation of odds ratios from a logistic regression. To avoid this misinterpretation, we will discuss the LB regression – its use and important considerations. The goal is to raise awareness of potential issues of each regression model. Several results presented are in collaboration with Dr. Gordon H. Fick from the University of Calgary.

This talk is for an audience with an introductory understanding of probability and linear regression models. Attendance of the previous talk is not required.

For further information:
gotchevi@ccsu.edu 860-832-2839
<http://www.math.ccsu.edu/gotchev/colloquium/>