

# Department of Applied and Computational Mathematics and Statistics Colloquium

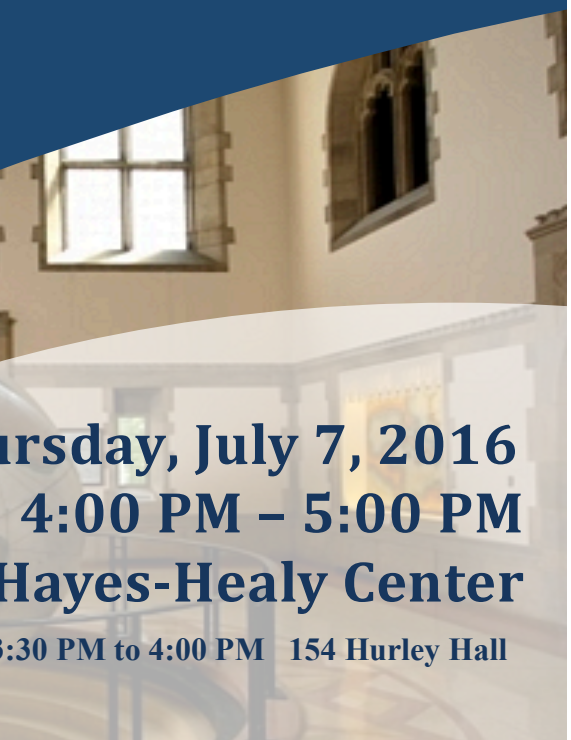


**Molly Walsh**

Department of Mathematics & Statistics  
Loyola University Chicago

## *An Introduction to Logistic Regression with Examples Using SAS*

Linear model methods like linear regression and analysis of variance (ANOVA) work well when you are working with normally distributed response variables with constant error variances. When the response variable is binary, these assumptions are typically violated, so logistic regression is often used to model the effect of one or more independent variables on a single dependent variable,  $Y$ , which is dichotomous. Maximum likelihood estimation (with the help of statistical software) is used to estimate the parameters. A few examples using SAS will be included, along with detailed interpretations of the results.

A background image showing the interior of a building, likely a library or study hall, with a large globe on a stand in the foreground. The building has high ceilings, large windows, and classical architectural details.

**Thursday, July 7, 2016**  
**4:00 PM – 5:00 PM**  
**127 Hayes-Healy Center**

Colloquium Tea 3:30 PM to 4:00 PM 154 Hurley Hall