BI-CO MATHEMATICS COLLOQUIUM

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"Joint Modeling: When One Model is Not Enough"

Monday, November 24, 2014

Talk at 4:00 – H109
Tea at 3:30 – KINSC Math Lounge, H208

Abstract:
A statistical model is a type of mathematical model that uses probability distributions to describe how one or more variables are related. In practice, different types of data are described by different types of models. Some common examples of statistical models include linear models, generalized linear models, survival models, longitudinal models, spatial models, and time-series models, among many others. In some cases, a single type of statistical model cannot adequately describe the relationships between variables in a data set. Joint Modeling refers to a modeling technique that uses two or more models to describe two or more types of data in a single data set. Most commonly, joint modeling describes the process of simultaneously modeling a time-to-event response variable together with one or more longitudinal predictor variables. This is done by defining a set of latent variables common to both models. In this talk, we will mainly focus on using joint models to describe the relationship between a binary variable and several longitudinal predictor variables.

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