

GRADUATE SEMINAR

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A New Multivariate Zero-Inflated Binomial Distribution with Application

MSc Student supervised by Dianliang Deng

Monday December 8

11:00 am

CW 307.20 (math lounge)

Abstract: A new multivariate zero-inflated binomial distribution is proposed to model the correlated multivariate proportional data with extra zeros. The distributional theory and properties are developed, which include joint probability mass function, joint cumulative distribution, mixed moments, moment generating function, marginal distribution and conditional distribution. Maximum likelihood estimates for parameters of interest are obtained by Fisher's scoring algorithm. Asymptotic confidence intervals of parameters are available.