

# GRADUATE SEMINAR

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## MULTIVARIATE ZERO-INFLATED DOUBLE POISSON DISTRIBUTION WITH APPLICATION

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**3:30pm**

**ED 209**

**Abstract:** In this talk, a new multivariate zero-inflated double Poisson distribution is proposed, which is considered as the generalization of univariate zero-inflated double Poisson. The statistical properties of new proposed distribution are derived. The maximum likelihood estimations of parameters are obtained. The score test statistic is derived to test zero inflation of multivariate count data with many zeros by using score function and information matrix. The empirical powers of score test are gained by a simulation study. The application of real data is performed to test zero inflation.

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