

STATISTICS SEMINAR

Date and time: Thursday, November 3, 3:30 PM

Place: Room 1313, Math Bldg

Speaker: Abram Kagan

Title: A Class of Multivariate Distributions Related to Distributions with a Gaussian Component

Abstract

A class of random vectors (\mathbf{X}, \mathbf{Y}) , $\mathbf{X} \in \mathbb{R}^j$, $\mathbf{Y} \in \mathbb{R}^k$ with characteristic functions of the form

$$h(\mathbf{s}, \mathbf{t}) = f(\mathbf{s})g(\mathbf{t}) \exp\{\mathbf{s}'\mathbf{C}\mathbf{t}\}$$

where C is a $(j \times k)$ -matrix and prime stands for transposition is introduced and studied. The class possesses some nice properties that will be discussed. A relation of the class to random vectors with Gaussian components is of a particular interest. The goal was to understand what kind of restrictions on the marginal distributions are imposed by an attempt to preserve Gaussian-like properties.