

Statistics Seminar

Inventory Pooling under Multivariate Fat-Tail Demands

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Abstract: We study the classic inventory pooling problem by Eppen (1979) under a special class of multivariate fat-tail distribution: Normal Inverse Gaussian (NIG) demands to better fit real-world demand data. We obtain the optimal inventory level in a closed form by employing standardized NIG density function, and express the optimal expected costs in terms of unit NIG loss function. In addition to independent and identically distributed demands, our results complement Bimpikis and Markakis (2015) by considering correlated demands. We further discuss the transshipment problem of Dong and Rudi (2004) under NIG demands.

Wednesday, September 13 at 4:00 PM in SEO 636