



SEMINARIO

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Mixtures of multivariate leptokurtic-normal distributions

Abstract: This work proposes the elliptical multivariate leptokurtic-normal (MLN) distribution to fit data with excess kurtosis. The MLN distribution is obtained from the elliptical representation of the MN distribution, by reshaping its generating variate with the associated orthogonal polynomials. The strength of this approach for obtaining the MLN distribution lies in its general applicability since it can be applied to any multivariate elliptical law to get a suitable distribution to fit data. Maximum likelihood is discussed as parameter estimation technique for the MLN distribution. Mixtures of MLN distributions are proposed for robust model-based clustering and an EM algorithm is presented to specifically obtain maximum likelihood estimates of the parameters. Benchmark real data are used to show the usefulness of mixtures of MLN distributions.

Lunedì 16 Dicembre 2019, ore 18:00

Aula 13 - Palazzo delle Scienze, Corso Italia n°55, Catania
