The Math/Stats Colloquium
Department of Mathematics and Statistics
San José State University

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Clustering based on the multivariate contaminated normal distribution

Wed Apr 26, 2023, MH320

Abstract: The multivariate contaminated normal (MCN) distribution represents a simple elliptical heavy-tailed generalization of the multivariate normal (MN) distribution aiming at handling and detecting mild outliers, sometimes also referred to as 'bad' points in the literature about the MCN. Advantageously, the two additional parameters have an interpretation of practical interest as a proportion of good observations and degree of contamination. In the talk, I will present a review of the uses of MCN distribution, and of some of its extensions, in clustering based on mixture models.

Background: Students should have a basic knowledge of clustering, statistical distributions, and EM algorithm.

About the speaker: Antonio Punzo received his Ph.D. in Methodological and Applied Statistics from the University of Milano-Bicocca and is a Full Professor of Statistics in the Department of Economics and Business at the University of Catania. His current research is mainly about clustering and classification using mixture models.

Snacks in MacQuarrie Hall 331B at 2:40pm
Talk starts at 3:00pm

For more information, see our full schedule at:

`http://www.timhsu.net/colloq/`