



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



# Cristina Tortora

## SJSU

*Recent developments in model-based clustering*

SEPTEMBER 30, 2016, MH320

**Abstract:** Cluster analysis aims to identify homogeneous groups of units, called clusters, within data. Model-based clustering methods consider the overall population as a mixture of groups and each component of this mixture is modeled through its conditional probability distribution. The choice of this distribution, which affects clustering results and algorithm performance, has been one of the central issues in the recent literature. Recently the generalized hyperbolic distribution and extensions have been used for cluster analysis because they are very flexible and are able to identify non-elliptical clusters. In this talk I'll show some of the most used models and some recently proposed models for model-based clustering.

*Background:* A first course in statistics.

**About the speaker:** Cristina Tortora is an Assistant Professor at SJSU. She completed her PhD in Statistics at the University of Naples "Federico II" in 2012. She has previously held postdoctoral positions at McMaster University, the University of Guelph, and Stazione Zoologica Anton Dohrn of Naples. Her research focuses on advanced model-based clustering techniques, with applications to big data.

SNACKS IN MH331B AT **2:00 pm**

TALKS START AT **2:30 pm**

For more information, see our full schedule at:

<http://www.math.sjsu.edu/~hsu/colloq/>