



The Math Colloquium  
Department of Mathematics  
San José State University



**Athanasios Kottas**  
UC Santa Cruz

*Applications of flexible statistical modeling  
for Poisson processes*

NOVEMBER 14, 2012, MH320

**Abstract:** The Poisson process is a simple and practical stochastic model for random events that occur over time and/or space. We will present results from methodological research on modeling for Poisson processes. The emphasis will be on applications, including neuronal data analysis (comparison of the firing patterns of neurons recorded under distinct experimental conditions), finance (the effect of systemic risks on multiple financial markets), and environmental sciences (risk assessment of extreme rainfall and estimation of time-varying hurricane intensity based on historical records).

*Background:* Students should have basic knowledge of probability and statistics. Background on the specific application areas that will be used to illustrate the statistical methods is not required.

**About the speaker:** Athanasios Kottas obtained a Ph.D. in Statistics from the University of Connecticut in 2000, and is currently a Professor of Statistics at University of California, Santa Cruz. His main research area is Bayesian nonparametrics, with applications in biometrics, ecology and the environmental sciences.

SNACKS IN MH331B AT 2:30 PM

TALK STARTS AT 3 PM

For more information, see our full schedule at:

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