



The Math Colloquium
Department of Mathematics
San José State University



Andrea Gottlieb
SJSU

*Modeling Functional Compositional Data
with Applications to
the Analysis of Behavioral Trajectories*

DECEMBER 5, 2012, MH320

Abstract: Compositional data consist of vectors whose entries are non-negative and sum to a fixed constant. Data of this type arise naturally in a variety of fields where the relative constitution rather than the absolute quantity of an object is of interest. In this talk, I will discuss a functional approach to modeling longitudinal compositional data. I will illustrate this approach with the analysis of a 2004 study of *Drosophilla melanogaster* which consists of behavioral measurements from birth to death for several hundred flies. Emphasis will be placed on model interpretation.

Background: Basic knowledge of linear algebra and statistics. Familiarity with multiple regression will be helpful, but not necessary.

About the speaker: Andrea Gottlieb obtained her B.A. and M.A. in Mathematics from UC Santa Cruz and her Ph.D. in Biostatistics from UC Davis. This is her first semester as an Assistant Professor in the Mathematics Department at San Jose State University.

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/>