



The Math Colloquium
Department of Mathematics
San José State University



Qiang Wang

UC Davis

*Distance between brain shapes:
How do brains differ, and how do brains change?*

MAY 2, 2012, MH320

Abstract: Latest medical imaging technologies (e.g. MRI) are capable of capturing very subtle geometric features of human and animal brains. Neuroscientists are interested in discovering the effects of neurological diseases (e.g. Alzheimer's, FXS/FXTAS, etc.) on these features. In this talk, I will first give a survey of several common mathematical ideas for quantifying brain shape differences, and then describe in some depth the “land-marking” technique for building brain shape space. This technique was used in my recent involvement in the research project of FXS/FXTAS disease on mouse models carried in Center for Neuroscience, UC Davis School of Medicine.

Background: One semester of linear algebra.

About the speaker: Qiang Wang received his Ph.D. in Mathematics from UC Davis in 2010, and is currently a Postdoc researcher at the Center for Neuroscience, UC Davis School of Medicine. His research interests are in both pure (Algebraic Combinatorics) and applied (Statistical Shape Analysis) mathematics.

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/>