



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



# Jeffrey Scargle

NASA Ames Research Center

*New Views of the Strange and Violent  
Astronomical Universe*

AUGUST 27, 2014, MH320

**Abstract:** Astronomical observations obtained with NASA spacecraft and other modern observatories are showing that the content, structure, and variability of our Universe is much stranger than previously imagined. Several data analysis methods contributing to these discoveries were developed over the last decade through the SJSU CAMCOS program. Several examples of these algorithms will be described, including time series analysis of the dramatic and puzzling variability of gamma-ray emission from the Crab Nebula, and topological analysis of the clustering of distant galaxies into the random array of structures called the Cosmic Web.

*Background:* No particular math or physics background is necessary.

**About the speaker:** Jeff Scargle has an undergraduate degree in astronomy from Pomona College and a Ph.D. in astrophysics from the California Institute of Technology. He is in the Space Science and Astrobiology Division of the NASA Ames research center, and a member of the Fermi Gamma Ray Space Telescope collaboration.

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/>