The Math Colloquium
Department of Mathematics
San José State University

Sylvia Plevritis
Stanford University

*Estimating the Likelihood of Cure
from Lung Cancer*

February 3, 2010, MH320

Abstract: Lung cancer is the leading cause of death from cancer in the United States, yet screening for lung cancer is not recommended even for current and former smokers. The problem is that it is not clear how early lung cancer needs to be detected for cure. We propose a mathematical model of the natural history of lung cancer that estimates the relationship between the size of the primary tumor and the likelihood of cure. The model was applied to several forms of cancer, accounting for gender, and model parameters were estimated using data from the Surveillance, Epidemiology and End Results (SEER) cancer registry.

Background: Familiarity with basic statistics (one course).

About the speaker: Sylvia Plevritis received her Ph.D. from Stanford's Department of Electrical Engineering and M.S. from Stanford's Division of Health Research and Policy. She is an Associate Professor in the School of Medicine and co-Director of Information Sciences in Imaging at Stanford. Her research takes a systems engineering approach to the study of cancer progression.

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/