



The Math Colloquium
Department of Mathematics
San José State University



Jeehyun Lee

Yonsei University (visiting SJSU)

Electrical Impedance Tomography

OCTOBER 6, 2010, MH320

Abstract: A new frequency-difference Electrical Impedance Tomography (fdEIT) method is designed to provide a weighted frequency-difference image of a complex conductivity distribution inside an imaging object. Experimental results show that the conventional fdEIT method using a simple frequency difference of voltage data fails to deal with numerous modelling errors even for a homogeneous object. The use of weighted-difference voltages in the new fdEIT method shows that its performance is similar to a time-difference EIT method which effectively cancels out modelling errors.

Background: Students should have a basic knowledge of calculus and linear algebra.

About the speaker: Jeehyun Lee received her Ph.D. from Iowa State Univ. and is a Professor of the Department of Computational Science and Engineering at Yonsei University in Korea. Her current research is in Mathematical Biology.

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/>