

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





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Abstract: Lawrence Berkeley National Laboratory (LBNL) has several research programs for undergraduates and faculty. In this talk, we will explore an image processing project I worked on through the Visiting Faculty Program with two undergraduate students and a laboratory scientist. In particular, we focused our efforts on image segmentation which partitions an image into its structural components. Our team developed and implemented a new graph-based image segmentation algorithm. In this project we learned C++ as beginner coders and our efforts were worthwhile as our preliminary results are promising.

Background: Calculus II and a first course in linear algebra.

About the speaker: Jessica De Silva received her Ph.D. from the University of Nebraska-Lincoln and is an Assistant Professor of Mathematics at California State University, Stanislaus. Her current research is in graph theory and combinatorics, with a particular emphasis on applications in computer science and data science.

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