



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



# Wesley Maciejewski

## SJSU

*Mathematical Foresight:  
Thinking in the Future to Work in the Present*

OCTOBER 21, 2016, MH320

**Abstract:** How do users of mathematics solve mathematical problems? The *automaticity* of solving a basic derivative-finding task and the *schema* evoked during less routine problems are familiar. This presentation will focus on another process that I have recently begun to describe: *Mathematical Foresight*. Mathematicians solving unfamiliar, non-routine problems often imagine a resolution to the problem and a path leading to that resolution. This amounts to imagining the problem in a future state, and this future thinking guides the mathematician's present work forward. I will present the main features of this process alongside evidence of mathematicians and students engaging in it.

*Background:* No particular background required.

**About the speaker:** Wes Maciejewski is an assistant professor of mathematics at SJSU. His Ph.D. in mathematics is from Queen's University, Canada, and he has had postdocs at Univ. of British Columbia and Univ. of Auckland, New Zealand. His main current research is in teaching mathematics to undergraduate non-majors.

SNACKS IN MH331B AT 2:00 pm

TALKS START AT 2:30 pm

For more information, see our full schedule at:

<http://www.math.sjsu.edu/~hsu/colloq/>