

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





## Sara Krehbiel

Santa Clara Univ.

How Private Is Your Data Analysis?

Wed Nov 08, 2023, MH320

Abstract: Our personal data is collected for many purposes. How can we impose safeguards on data analysis to make sure it doesn't inadvertently leak individual data? Differential privacy is a mathematical guarantee that even if data analysis reveals rich information about a population, there is little it can reveal about an individual, even if an adversarial party knows almost everything about the dataset. But how much can a more realistic adversary learn? We explore how this depends both on what the adversary already knows and on the algorithms used to achieve differential privacy in the first place.

Background: No particular background required.

About the speaker: Sara Krehbiel is an Associate Professor in the Department of Math and CS at Santa Clara University. As a theoretical computer scientist, most of her research involves answering computational questions in a mathematical way. Her current main areas of research are graph theory and differential privacy, the latter of which is the subject of this talk.

SNACKS IN MACQUARRIE HALL 331B AT 2:40PM TALK STARTS AT 3:00PM

For more information, see our full schedule at:

http://www.timhsu.net/colloq/