

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





## David Draper UC Santa Cruz The Seven Pillars of Statistical Data Science

Wed Nov 15, 2023, MH320

Abstract: Statistical data science is a collaborative activity in which a team of experts, including one or more statisticians, works together to make progress on solving a (hard) problem, ideally of (substantial) practical importance (e.g., global boiling), that involves uncertainty quantification. In this talk I'll present a framework, consisting of seven activities, that encompasses most or all of what constitutes statistical data science: (1) problem formulation (2) probability calculations (3) design of data-gathering activities (4) curation of existing data sets (5) well-calibrated statistical inference (6) well-calibrated statistical prediction (7) well-calibrated decision-making under uncertainty. Time permitting, I'll illustrate some or all of these activities in the context of one or more case studies.

Background: Curiosity about what statistical data science is.

**About the speaker:** David Draper is a professor of statistics in the Department of Statistics at UC Santa Cruz, with over 40 years of experience in data science.

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/