

2018 PIMS-UBC Statistics Constance van Eeden Lecture: Jim Berger (Duke University)

5:00pm

8 March, 2018

Aquatic Ecosystems and Research Laboratory (AERL), Room 120
The University of British Columbia

REPRODUCIBILITY OF SCIENCE:

P-VALUES, MULTIPLE TESTING AND OPTIONAL STOPPING

Three of the statistical causes for the lack of reproducibility of science will be discussed, along with a suggested cure. The first cause is the common misinterpretation of p-values; the second is the frequent lack of sufficient adjustment for multiple testing; the third is the common ignoring of optional stopping when testing. The suggested cure for all three is to use odds of hypotheses as the basic inference tool. Surprisingly, this can be done in a way that simultaneously accommodates both frequentist and Bayesian reasoning.



JIM BERGER has made fundamental contributions to the foundations of statistics and to statistical decision theory. He is one of the world's leading figures in Bayesian statistics and has made seminal contributions to the areas of model selection, multiple inference, computer modeling and simulation. For his work, he has received many honours including the COPSS Presidents' Award, a Guggenheim Fellowship, the R. A. Fisher Lectureship, and the Wilks Memorial Award from the ASA. He has supervised 36 Ph.D. dissertations, published over 190 papers, written or edited 16 books or special volumes and is a founding editor of the Journal on Uncertainty Quantification. Berger has also made substantial interdisciplinary contributions in the fields of astronomy, geophysics, medicine and the validation of complex computer models.

There will be a pre-reception prior to the talk from 4:30pm - 5:00pm at the same venue. For more details, please visit: <https://www.pims.math.ca/scientific-event/180308-puscveljb>



Department of
Statistics

