

Departmental Colloquium

What is statistical inference?

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Abstract: Statistical methodology has made extraordinary advances in recent years, but the foundations of statistics still are not yet fully developed. In fact, basic questions such as "what is statistical inference?" remain unanswered. In this talk, I will present a definition of statistical inference, introduce a key validity criterion, and relate these ideas to what has been called the "most important unsolved problem in statistics". After giving some background to put the problem in perspective, I will introduce the new *inferential model* (IM) framework and argue that it solves that important unsolved problem. Some examples will be presented to demonstrate the potential of IMs, and I will conclude with some important open problems, interesting (perhaps) to both statisticians and mathematicians.

Friday, October 30 at 3:00 PM in SEO 636
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