



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



**Bernd Sturmfels**

UC Berkeley

**Beyond Linear Algebra**

FEBRUARY 4, 2015, MH320

**Abstract:** Linear algebra is the foundation of scientific computing and its numerous applications. Yet, the world is non-linear. In this lecture we argue that it pays off to work with models that are described by non-linear polynomials, while still taking advantage of the power of numerical linear algebra. We present a glimpse of applied algebraic geometry, by discussing recent advances in tensor decomposition, polynomial optimization, and algebraic statistics.

*Background:* One course in linear algebra.

**About the speaker:** Bernd Sturmfels is Professor of Mathematics, Statistics, and Computer Science at UC Berkeley. A leading experimentalist among mathematicians, Sturmfels has authored ten books and 230 research articles, and he has mentored numerous students and postdocs. His research revolves around computational algebraic geometry in statistics, optimization, and biology.

SNACKS IN MH331B AT 2:30 PM

TALKS START AT 3 PM

For more information, see our full schedule at:

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