

# 31<sup>st</sup> Annual Michelson Memorial Lecture

Wednesday, October 5, 2011 at 7:15 PM

Mahan Hall

United States Naval Academy

Annapolis, Maryland



**Bernd Sturmfels**

University of California, Berkeley

## Tropical Mathematics

### **Abstract:**

In tropical arithmetic, the sum of two numbers is their maximum and the product of two numbers is their usual sum. Many results familiar from algebra and geometry, including the Quadratic Formula, the Fundamental Theorem of Algebra, and Bezout's Theorem, continue to hold in the tropical world. In this lecture we learn how to draw tropical curves and why evolutionary biologists might care about this.

### **About the Speaker:**

Bernd Sturmfels is Professor of Mathematics, Statistics and Computer Science at the University of California, Berkeley. He received doctoral degrees in Mathematics in 1987 from the University of Washington, Seattle, and the Technical University Darmstadt, Germany.

Dr. Sturmfels' honors include a National Young Investigator Fellowship, a Sloan Fellowship, and a David and Lucile Packard Fellowship, a Clay Senior Scholarship, an Alexander von Humboldt Senior Research Prize, and the SIAM von Neumann Lectureship for outstanding contribution to the field of applied mathematics. Recently, he served as Vice President of the American Mathematical Society, from 2008 to 2010.

A leading experimentalist among mathematicians, Dr. Sturmfels has authored ten books and 200 research articles, in the areas of combinatorics, algebraic geometry, symbolic computation and their applications. He has mentored 30 doctoral students and numerous post-doctoral fellows. His current research focuses on algebraic methods in optimization, statistics and computational biology.

**The Michelson Memorial Lecture Series is sponsored by the United States Naval Academy Class of 1969.**