

STATISTICS COLLOQUIUM SERIES

Mathematics of Bio-Chemical Reaction Networks

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California, Berkeley

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3:00-4:00 p.m.

CB 102

ABSTRACT

This lecture gives an introduction to geometric and algebraic aspects of the theory of chemical reaction networks, with a view towards emerging applications in systems biology.

Bio

Bernd Sturmfels received doctoral degrees in Mathematics in 1987 from the University of Washington, Seattle, and the Technical University Darmstadt, Germany. After two postdoctoral years at the Institute for Mathematics and its Applications, Minneapolis, and the Research Institute for Symbolic Computation, Linz, Austria, he taught at Cornell University, before joining UC Berkeley in 1995, where he is Professor of Mathematics, Statistics and Computer Science.

A leading experimentalist among mathematicians, Sturmfels currently serves as Vice President of the American Mathematical Society. He has authored or edited 15 books and about 170 research articles, in the areas of combinatorics, algebraic geometry, symbolic computation and their applications. With Lior Pachter, he published a book "Algebraic Statistics for Computational Biology", and he started the Laboratory for Mathematical and Computational Biology at UC Berkeley, which offers a unique setting of interaction for students and postdocs interested in both mathematics and the life sciences.