G. Milton Wing Lecture Series

February 2017

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WITH GUEST LECTURER
WILLIAM STEIN

Professor of Mathematics, University of Washington; Founder and CEO of SageMath Inc.

Teaching classes and doing research with collaborative web-based open-source software

WEDNESDAY, FEBRUARY 8, 5–6 P.M., 1-101 DEWEY HALL
PUBLIC LECTURE

Professor William Stein has taught courses involving open-source software in mathematics departments at Berkeley, Harvard, and University of Washington for more than 15 years. He spent the last four years building the web application cloud.sagemath.com, which makes using open-source software in teaching much easier, safer, and more fun. He'll talk about how he built cloud.sagemath.com and how to use it to improve classes.

Developing open-source mathematical software as an academic: SageMath

**THURSDAY, FEBRUARY 9, 3:30–4:30 P.M.
201 LATTIMORE HALL**

In 2005 Stein started the SageMath project, whose goal is to create a free, open-source, viable alternative to Matlab, Maple, Mathematica, and Magma. SageMath uses the Python programming language, has a huge amount of functionality, and is the leading open-source math software package. In this talk, he'll show SageMath, explain where it came from, and explain the precarious funding situation that results from difficulties the pure mathematics community has in supporting open-source mathematical software.

The Birch and Swinnerton-Dyer conjecture and the Riemann hypothesis: Computing with number theoretic objects

**FRIDAY, FEBRUARY 10, 2–3 P.M.
1106A HYLAN BUILDING**

Professor Stein's favorite research problem in number theory is the Birch and Swinnerton-Dyer conjecture, and he just coauthored a book with Barry Mazur explaining the Riemann hypothesis. In this talk, he will show an explicit computation related to each of these famous and exciting conjectures; these computations will give a sense as to why people might actually believe these very deep and extremely surprising conjectures.

Lecture Series Sponsored by the Department of Mathematics

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