The Humboldt State University Department of Mathematics Proudly Presents The 57th Harry S. Kieval Lecture** **Monday, March 28, 2011** Science B 135 7:30 P.M

> David Pengelley Professor of Mathematics New Mexico State University

Voici Ce Que J'ai Trouvé (Here Is What I Have Found): Sophie Germain's Grand Plan for Proving Fermat's Last Theorem.

Sophie Germain (1776-1831) is the first woman known to have created important mathematical research. Although barred from universities, she managed to engage the world's top mathematicians, initially through male impersonation.

Professor Pengelley's recent discoveries in Germain's manuscripts reveal that she pursued an unknown grand plan to prove outright the famous claim of Pierre de Fermat, today known as Fermat's Last Theorem. Professor Pengelley will explore Germain's situation and her grand plan, and argue for a substantial elevation of her stature as a number theorist.

No prior mathematical knowledge is required of the audience.

For more than 25 years, David Pengelley has been both an active researcher in the field of algebraic topology and a leader in university level mathematics education. Early in the calculus reform movement of the 1980'3, he and his colleagues at New Mexico State University developed a program based on problem solving to engage and challenge students to think creatively, integrate their understanding, and communicate ideas. This work was disseminated in the a best-selling MAA volume, *Student Research Projects in Calculus*. Pengelley is a major proponent of teaching with historical texts as primary sources. He developed honors courses following this model, leading to two coauthored textbooks. He has written and spoken widely to encourage this pedagogy while pursuing his own historical research. Having won several awards for his achievements and his teaching, in 2009 he was awarded the prestigious Deborah and Franklin Tepper Haimo Award by the Mathematical Association of America honoring college or university teachers who have been widely recognized as extraordinarily successful and whose teaching effectiveness has been shown to have had influence beyond their own institutions.

**A lecture on some popular and/or broad aspects of mathematics attractive to undergraduates and the public For More Information go to: http://www.humboldt.edu/~mathdept/HarrySKieval/kl.html HSU is an AA/EO institution.

Disability accommodations may be available from event sponsor at 826-5347

