



**The Humboldt State University
Department of Mathematics
Presents:**

The 56th Harry S. Kieval Lecture**

Wednesday, November 3, 2010

8:00 P.M.

Science B 135

Alice Silverberg

**Professor, Math & Computer Science
University of California at Irvine**

**“Cryptography -
How to Keep a Secret”**

When you send your credit card number over the Internet, cryptography helps to ensure that no one can steal the number while it's in transit. Cryptography dates back thousands of years. Julius Caesar and Mary, Queen of Scots used cryptography to send secret messages, in the latter case with ill-fated results. More recently, cryptography is being used in electronic voting, and is also used to "sign" documents electronically. Some of the recent exciting breakthroughs in cryptography include elliptic curve cryptography, pairing-based cryptography, and identity-based cryptography, all of which are based on advanced mathematics. The talk will discuss cryptography through the ages, and how modern cryptography uses mathematics, especially the field of number theory.

**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/math/kieval/index.html>
HSU is an AA/EQ institution.

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

