



**2005-2006
LECTURE-AND-DISCUSSION SERIES PRESENTS**

Cryptography, Freedom, Democracy

How Basic Science Affects Everyone

Professor Nelson H. F. Beebe, University of Utah

Sunday, December 11, 2005

Meet & Greet: 1:45 pm • Presentation: 2:00 pm • Meeting Closes: 3:30 pm

Salt Lake Main Library, 210 East 400 South, Fourth Floor Conference Room

Free and Open to the Public

Nelson H. F. Beebe is a Research Professor of Mathematics at the University of Utah, with a background in chemistry, physics, mathematics, and computer science. He is involved in development of mathematical software, computer systems management, electronic document production and typography, and the construction of large bibliographic databases in numerical mathematics and computer science, including ones that cover the fields of cryptography and cryptology, and their history.

"To most people, research in basic science seems irrelevant, and consequently, citizens, legislators, government funding agencies, and corporations are disinclined to support it.

Nevertheless, basic science can have deep impacts on our lives. This talk examines two developments in basic science in the Twentieth Century. The first of them, Albert Einstein's work in 1905, changed the field of physics, and the course of history. The second, the invention of public-key cryptography in 1975, has important consequences for privacy, freedom, and democracy.

Many of mankind's discoveries have potential for both good and bad. The talk concludes with a discussion of some recent uses of technology that pose the very serious risk of our complete loss of privacy, freedom, and democracy."

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