

2016-17 MATH AND SOCIETY LECTURE

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MICROSOFT RESEARCH



How to Keep Your Genome Secret

Wednesday,
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JBD

4:40pm-5:40pm

Over the last 10 years, the cost of sequencing the human genome has come down to around \$1,000 per person. As a society, we face ethical and privacy questions related to how to handle human genomic data. Should it be aggregated and made available for medical research? What are the risks to individual's privacy? This talk will describe a mathematical solution for securely handling computation on genomic data, and highlight the results of a recent international contest in this area.

Kristin Lauter is a Principal Researcher and Research Manager for the Cryptography group at Microsoft Research, and an Affiliate Professor in the Department of Mathematics at the University of Washington. Lauter is currently serving as President of the Association for Women in Mathematics. She was T.H. Hildebrandt Assistant Professor of Mathematics at the University of Michigan (1996-1999), and a Visiting Scholar at Max Planck Institut fur Mathematik in Bonn, Germany (1997), and at Institut de Mathematiques Luminy in France (1999). In 2008, Lauter, together with her coauthors, was awarded the Selfridge Prize in Computational Number Theory.