

13th Annual Shannon Memorial Lecture



Michael Luby

Qualcomm, Inc.

will present a lecture entitled

A Shannon-like Approach to Reliable Distributed Storage

As the amount and value of digital content continues to explode, long-term preservation of content is becoming increasingly problematic. Reliable distributed storage systems consisting of hundreds to tens of thousands of potentially unreliable storage nodes are a popular practical solution: current systems use replication or erasure codes that spread data for each object over a small number of nodes. Pioneering a Shannon-like approach, we introduce a solution that spreads data for each object over a large numbers of nodes. Our solution offers exceptional object durability while minimizing storage overhead and repair traffic, and provides fast predictable access to objects.

Mike Luby, Vice President, Qualcomm, Inc, is focusing on advanced research, including broadcast multimedia delivery, Internet streaming, and reliable distributed storage. He has been recognized for his work in coding theory, cryptography and content delivery technologies, including the IEEE Richard W. Hamming Medal, the ACM SIGCOMM Test of Time Award, the IEEE Eric E. Sumner Communications Theory Award, the ACM SIAM Outstanding Paper Prize, the UC Berkeley Distinguished Alumni in Computer Science Award, and the IEEE Information Theory Society Information Theory Paper Award. Mike earned a BSc in Applied Math from M.I.T. and a PhD in Theoretical Computer Science from UC Berkeley. He is a member of the National Academy of Engineering and is an IEEE Fellow.

Tuesday, December 1, 2015

3:00 PM – Reception, Atkinson Hall

4:00 PM – Lecture, Qualcomm Institute/Calit2 Auditorium – Atkinson Hall

Presented by



California Institute of Telecommunications
and Information Technology



Information Theory and
Applications Center