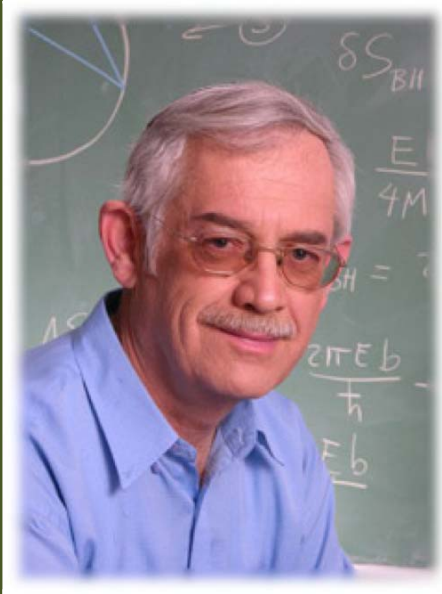


The limits of information and black holes

Professor Jacob Bekenstein

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BIO: Jacob Bekenstein was John Wheeler's doctoral student at Princeton University and is now Polak Professor of Theoretical Physics at the Hebrew University. He is a member of the Israel Academy of Sciences and Humanities and a recipient of the Israel Prize. Bekenstein connected gravitational theory with thermodynamics, which led to the Bekenstein Bound for the concentration of information to a limited volume and to the concept of Bekenstein-Hawking radiation, which describes emission from black holes.

The importance of information technology motivates fundamental questions about absolute limits to information itself. I show how laws of heat, disorder and gravitational collapse reveal the ultimate limits to information storage and behavior of complex systems according to a "holographic" correspondence between natural laws of our universe with the laws of a boundary for a higher-dimensional universe.

7 – 9 pm Wednesday 2 June 2010 in ICT 102

Admission free but advance ticket required:

Register at <http://www.iqis.org/outreach/publiclecture.php>

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