



Institute colloquium

# The Institute Colloquium

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Host:

The established theory of information and computation treats information as a purely mathematical notion, which is independent of its physical representation. However, any information carrier is ultimately physical, and one may therefore ask whether the laws of physics have any implications to information processing. The physicist Rolf Landauer was among the first to study this question. Using arguments from thermodynamics, he concluded that any irreversible processing of information (such as the erasure of a bit) costs a certain minimum amount of work. In my talk, I will explain this fundamental link between information theory and thermodynamics, and show how results from modern quantum information theory help us understand it better.

**Monday, January 18, 2016 12:45pm - 01:45pm**

Raiffeisen Lecture Hall, Central Building



This invitation is valid as a ticket for the ISTA Shuttle from and to Heiligenstadt Station.

Please find a schedule of the ISTA Shuttle on our webpage:

<https://ista.ac.at/en/campus/how-to-get-here/> The ISTA Shuttle bus is marked ISTA Shuttle (#142) and has the Institute Logo printed on the side.