



Institute colloquium

Institute Colloquium: Information and the Foundations of Quantum Physics

Anton Zeilinger

University of Vienna / Austrian Academy of Sciences

Host:

Information plays a central role both in understanding quantum mechanics and as a field of possible applications. With reference to concrete experiments I will review the fundamental phenomena in quantum physics from an information perspective: quantum superposition, quantum entanglement and objective randomness. And I will show how these fundamental concepts are applied in various quantum information protocols like quantum communication, quantum teleportation and quantum computation. I will then discuss recent fundamental experiments made possible by the technological development in quantum information science, which shed new light again on the foundations of quantum physics. In the talk, I will also try to venture into musings about possibilities for application in biological systems.

Monday, December 19, 2011 04:30pm - 05:30pm

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.