



Invitation

Information and the Foundations of Quantum Physics

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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, 4.30 pm

Raiffeisen Lecture Hall, Central building, 1st floor



2011-12-19

This invitation is valid as a ticket for the IST Shuttle from and to Heiligenstadt Station. Please find a schedule of the IST Shuttle on our webpage (note that the IST Shuttle times are highlighted in lilac): http://www.ist.ac.at/fileadmin/user_upload/pdfs/IST_shuttle_2011.pdf.

The IST Shuttle bus is marked IST Shuttle (line 242) and has the Institute Logo printed on the side.