

Lecture

From prehistoric qubits to building a useful quantum computer

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Host: Johannes Fink

The Royal Swedish Academy of Sciences has decided to award the Nobel Prize in Physics 2025 to John Clarke, Michel H. Devoret and John M. Martinis for the discovery of macroscopic quantum mechanical tunnelling and energy quantisation in an electric circuit.John Martinis' presentation traces the evolution of superconducting quantum computing from its foundational physics experiments in the 1980s to the 2019 demonstration of quantum supremacy with Googles Sycamore processor. Scaling current noisy quantum systems into fault-tolerant commercial computers requires transitioning from bespoke academic fabrication to standardized 300mm semiconductor manufacturing lines and horizontal industry partnerships.

Friday, September 25, 2026 10:00am - 11:00am
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.