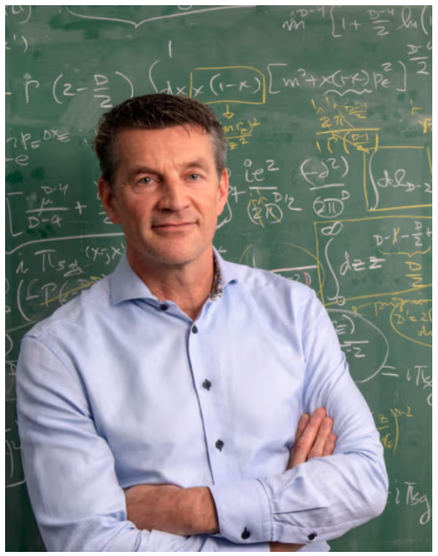
HERTZ LECTURE.

DESY Lecture on Physics 2026

The Quantum Nature of Space and Time

Prof. Dr. Jan de Boer
Amsterdam U.



Wednesday, 23 Sep 2026, 17:30 h
DESY main auditorium
https://webcast.desy.de

Einstein's theory of general relativity describes gravity as the geometry of space and time, while quantum mechanics governs the microscopic world of atoms and elementary particles. Reconciling these two pillars of modern physics remains one of the greatest scientific challenges. Over the past decade, however, remarkable new connections between gravity, quantum information, and black holes have reshaped our understanding of the problem. This lecture will introduce the central ideas behind quantum gravity, and explain why black holes have become invaluable theoretical laboratories. Along the way we will discuss both the progress that has been made and the profound mysteries that remain.

Heinrich Hertz
1857 Hamburg-Karlsruhe-Bonn 1894

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