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MÜNCHEN

ARNOLD SOMMERFELD
CENTER FOR THEORETICAL PHYSICS



Arnold Sommerfeld Lecture Series

Professor Alexander Polyakov

Princeton University, USA

Public Lecture: From Plato to quarks and back

In this lecture I try to describe our view of the world, based on the Standard Model. We begin with quarks and leptons and move to the phenomenon of quark confinement. We show that the natural habitat for the confining interactions is a certain five dimensional space-time, while the familiar four dimensions arise as a "holographic" projection. We compare this picture with the ideas of Plato, and, more generally, with basic philosophical expectations. That brings us to the brief discussion of the unorthodox views of reality, expressed by a number of great scientists, including Newton, Swedenborg and Pauli.

Tuesday, 13th January 09, 18:00 h, Lecture Hall B052, Theresienstr. 37, LMU

Prof. V. Mukhanov