



LUDWIG-
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ARNOLD SOMMERFELD
CENTER FOR THEORETICAL PHYSICS



Arnold Sommerfeld Lecture Series

Professor Licia Verde

University of Barcelona

Sommerfeld Theory Colloquium:

A tale of many Hubble constants

The Hubble constant should be a single number. Yet precision cosmology seems to offer several, not all mutually compatible. The issue is often framed as a disagreement between the local distance ladder and the cosmic microwave background, but the landscape is much richer.

Geometric distances, standard candles, cosmic rulers, and stellar ages provide different routes to the present-day expansion rate, each relying on different physical processes and assumptions. Understanding what each route actually constrains, how independent the determinations are, and where systematic uncertainties enter is essential to interpreting their apparent discrepancies.

I will use this tale of many Hubble constants to examine the remarkable success, and increasing rigidity, of the standard cosmological model, and reflect on what clues these complementary consistency tests, spanning different physical regimes, might offer towards a more complete description of the Universe.

Wednesday, October 21, 2026, 16:15 h, Room A348, Theresienstr. 37, LMU

Prof. Dieter Lüst and Prof. Slava Mukhanov