



ARNOLD SOMMERFELD
CENTER FOR THEORETICAL PHYSICS



Sommerfeld Theory Colloquium

Wednesday, 20th January 2021

at 16.15 h

Prof. Subir Sarkar
(Oxford University)

Re-examining Cosmic Acceleration

Type Ia supernovae are standard (isable) candles so observing them out to cosmological distances reveals the change of the Hubble parameter with redshift. Such observations have been interpreted to mean that the expansion rate of the universe is accelerating, as if driven by a Cosmological Constant. However reanalysis of the data shows that the inferred cosmic acceleration is anisotropic and aligned with the CMB dipole - so is likely an artefact due to our being untypical observers embedded in a local non-Hubble 'bulk flow'. Moreover the usual kinematic interpretation of the CMB dipole is rejected at 4.9 sigma as the corresponding dipole in the distribution of distant quasars is much bigger than expected. The implications of these surprising findings will be discussed.

For ZOOM access information, please contact Michael Haack: michael.haack@lmu.de

Prof. Gia Dvali