



KCETA Colloquium

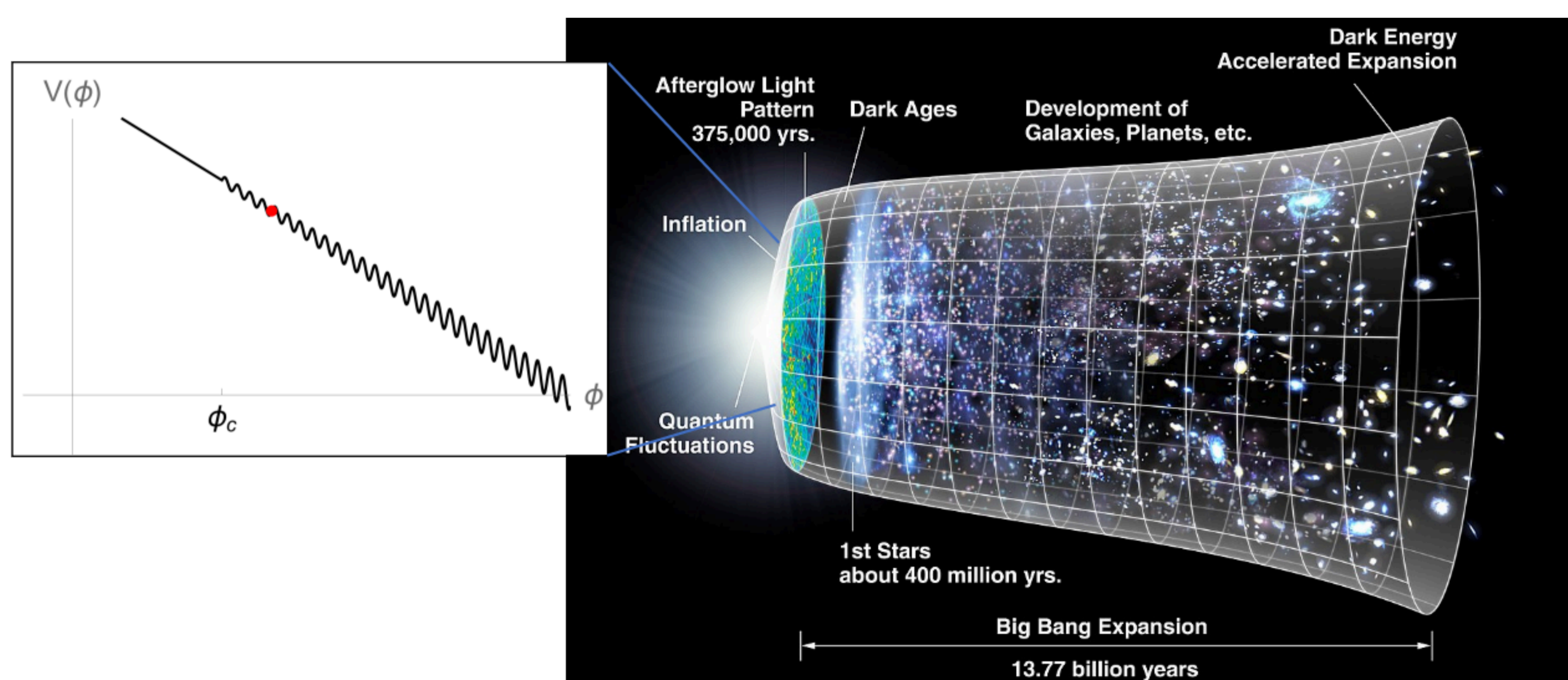
The Failure of Naturalness

Thursday, December 7, 2023

Kleiner Hörsaal A (CS) 15:45 - 17:00

Dr. Tevong You (King's College London)

The lack of new physics Beyond the Standard Model (BSM) at the CERN Large Hadron Collider (LHC) may be the most significant null result since the Michelson-Morley experiment. This talk will review the implications of a possible failure of naturalness arguments in the context of the Effective Field Theory (EFT) paradigm, and its theoretical implications for BSM physics. I will argue that a thorough exploration of the Higgs sector is imperative for further understanding our universe regardless of naturalness, as is the continuation of the precision and energy frontiers of particle physics in general. Its complementarity with astrophysical and cosmological observatories is vital for the future of fundamental physics. I will focus on the proposed Future Circular Collider (FCC) at CERN as an example of the wide-ranging physics programme that such a “particle observatory” can achieve.



Please note:

The colloquium will also be live-streamed to Seminarraum 410 in Bld. 401 (CN).