

# Exploring the ultraviolet from neutrino oscillations and Neff in the EFT framework

*Thursday, 15 April 2021 23:00 (24 minutes)*

Since the discovery of the Higgs particle in 2012 at the LHC, the null observation from various experiments has gradually changed our strategy in searching for new physics from a model-dependent pattern into the EFT approach. In this talk, I will discuss our most recent work in this direction. The first part of my talk will mainly focus on constraining the ultraviolet physics within SMEFT by utilizing current neutrino-oscillation data [1]. And, in the second part of this talk, I will start from a different angle and discuss how to gain some knowledge on the ultraviolet from precision measurements of Neff [2].

Refs:

[1] <https://arxiv.org/abs/2101.10475>

[2] <https://arxiv.org/abs/2011.14292>

**Primary authors:** LI, Haolin (ITP CAS); TANG, Jian (Sun Yat-Sen University); YU, Jiang-Hao (ITP, CAS); VILHONEN, Sampsa (Sun Yat-Sen University); DU, Yong (ITP)

**Presenter:** DU, Yong (ITP)

**Session Classification:** 4.15 night