



INVITATION

as part of the Particle Physics Seminar

to the talk by

Ryan PLESTID
(Ohio State University, CERN)

on

“Heavy particle EFT methods for precision beta decays”

Abstract:

A tension in the unitarity of the first-row of the CKM matrix has emerged in recent years. This "Cabibbo anomaly" has motivated a renewed scrutiny of the QED corrections applied to low-energy precision beta decays.

In this talk I will explain how this problem can be formalized in effective field theory, ultimately descending to a heavy-quark-like effective theory of point-like nuclei. I will outline recent progress on the control of high order QED corrections in this point-like theory, including an understanding of the all-orders structure for the Z-enhanced Coulomb-corrections, and comment on implications for the extraction of $|V_{ud}|$ and the interpretation of beta-decay experiments.

Time: Tuesday, 25 November 2025, 4:15 p.m.

Location: Erwin-Schrödinger Lecture Hall, 1090 Vienna, Boltzmannngasse 5, 5th floor

Join Zoom Meeting - Meeting ID: 933 4269 3866 Passcode: 185096

<https://univiennea.zoom.us/j/93342693866?pwd=aUpTR0VJNUhJY2Q0ajdaKzI1YWVBQT09>