



E I N L A D U N G

im Rahmen des Teilchenphysikseminars

zum Vortrag

von

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über

„Mathematical aspects of the FOPT/CIPT discrepancy

in tau decays“

Abstract:

The long-standing discrepancy between fixed-order (FOPT) and contour-improved (CIPT) perturbative expansions for hadronic spectral function moments in the context of tau decays leads to systematic discrepancies in the determination of the strong coupling and contributes to its theoretical uncertainty.

We address the FOPT and CIPT series from the mathematical perspective. FOPT, which is a power expansion in the strong coupling, is compared to CIPT, which in contrast is an expansion in functions of the strong coupling. We find important differences in the formal properties that both series have as asymptotic expansions, and we also gain insight on the apparent better behavior of CIPT at low orders.

Zeit: Dienstag, **25.04.2023, 16:15 h**

Ort: Erwin-Schrödinger-Hörsaal, Boltzmannngasse 5, 5. Stock

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

<https://univienne.zoom.us/j/93342693866?pwd=aUpTR0VJNUhJY2Q0ajdaKzI1YWVhYkR0aDZkdz09>

gez.: A. Hoang, M. Procura