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E I N L A D U N G

im Rahmen des Teilchenphysikseminars

zum Vortrag

von

Guido Bell

(University of Siegen)

über

"Revisiting strong-coupling determinations from event shapes"

Abstract:
Electron-positron event shapes are among the oldest and most established observables for extracting the strong coupling constant. The most precise determinations based on the thrust and C-parameter distributions yielded values, however, that are currently in tension with the PDG world average. We therefore revisited the theoretical foundation of the event-shape fits, in particular their implementation of non-perturbative effects. Interestingly, we found that the combined effect of altering the renormalon subtraction scheme and perturbative scale parameters can lead to a few-percent-level impacts on the extracted alpha_s value, indicating a potentially important systematic theory uncertainty that should be accounted for.

Zeit: Dienstag, **16.1.2024, 16:15 h**
Ort: Erwin-Schrödinger-Hörsaal, Boltzmanngasse 5, 5. Stock

Join Zoom Meeting - Meeting ID: 933 4269 3866 Passcode: 185096
https://univienna.zoom.us/j/93342693866?pwd=aUpTR0VJNUhJY2Q0ajdaKzI1YWVBQT09

gez.: A. Hoang, M. Procura