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EINLADUNG

im Rahmen des Teilchenphysikseminars

zum Vortrag

von

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über

"QCD correlators at higher orders"

Abstract:
Estimating uncertainties for perturbative predictions in QCD often hinges on our knowledge of higher-order corrections. Different approaches are available to achieve this goal like the study of scale and scheme variations, as well as investigating the general renormalon structure. Those approaches are exemplified for the case of QCD two-point correlation functions. In order to study scheme variations, it proves useful to introduce a particular scheme, the so-called C-scheme, in which the QCD beta-function is manifestly scheme invariant and known to all orders. On the other hand, the renormalon structure of QCD correlators can provide important insight into the general behaviour of their perturbative series. This general behaviour also suggests the existence of a scheme-invariant coupling in full QCD which will be introduced and its implications discussed.

Zeit: Dienstag**,** 29.1.2019 **16:15**

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

gez**.:** A. Hoang, S. Plätzer, M. Procura