東北大学　宇宙創成物理学国際共同大学院プログラム

GP-PU (Graduate Program on Physics for the Universe）Seminar

“Precise determination of |Vcb| by renormalon subtraction”

by Yuuki Hayashi (Tohoku Univ.)

Time and Date: 15:00-17:00, Mar 8th, 2023

Place: Room 745, Science Complex B H03 (hybrid)

Registration:"https://us02web.zoom.us/meeting/register/tZwtduuqrzMtGNfqHxzgtvCA9eWDjF6e_f9A”

Abstract: Predicting the physics of the B meson requires both perturbative and non-perturbative contributions simultaneously, otherwise theoretical accuracy would be limited. In particular, it is necessary to formulate a method for subtracting renormalons that rapidly increase the perturbative expansion from the point of view of perturbation theory. We have developed a new method to subtract renormalons using the Laplace transform. In this talk we discuss the application of the method to the semileptonic B meson decay for the precise determination of |V_{cb}|, one of the CKM matrix elements.

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