Contribution ID: **56** Type: **invited plenary talk**

Semi-leptonic decays of charmed hadrons

Thursday, 20 July 2023 09:00 (45 minutes)

The theoretical description for charm decays is notoriously challenging. In this respect, semi-leptonic decays are excellent probes as they are at least easier to describe than their nonleptonic counterparts. In this talk, I will focus on inclusive semi-leptonic charm decays. For these decays, one may hope that the heavy-quark expansion, a well-established tool in beauty decays, works to some extend. I will describe how to set up this framework and its challenges. One of these is the definition of a renormalon-free suitable charm mass. Finally, I discuss how to experimentally test whether or not the heavy-quark expansion works and which future experimental inputs are required to finally even extract CKM elements from these decays.

Consent

I consent to recording/broadcasting my presentation.

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