

## Early charm physics at Belle II

*Friday, 14 January 2022 15:50 (10 minutes)*

Analyses of D meson yields as functions of decay time provide access to fundamental standard model parameters and probe natural non-SM scales at 10-100 TeV energies. Outstanding vertexing performances are key enablers of this program. We prove the capabilities of the Belle II detector by measuring the lifetimes of the D0 and D+ mesons. The results are the most precise to date, owing to a vertexing resolution 2x better than that of Belle and BaBar. Perspectives on the sensitivity to the main observables in charm physics. First results obtained on relevant channels with early data sets are shown.

**Primary author:** DAS, Sanjeeda Bharati (Malaviya National Institute of Technology Jaipur)

**Presenter:** DAS, Sanjeeda Bharati (Malaviya National Institute of Technology Jaipur)

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