# XIII International Conference on New Frontiers in Physics 2024



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# Semileptonic and missing energy B decays at Belle II

Wednesday 28 August 2024 17:40 (20 minutes)

The Belle II experiment has collected a 364  $fb^{-1}$  sample of  $e^+e^-$  collisions at the  $\Upsilon(4S)$  resonance. This dataset, with its low particle multiplicity and well-constrained initial state, provides an ideal environment for studying semileptonic and missing energy B decays. In this talk, I will present recent results on these decays, emphasizing their impact on the determination of CKM matrix elements and potential new physics. I will also discuss the techniques used for missing energy reconstruction and the challenges of signal-background discrimination. Future analysis prospects with larger data sets will also be highlighted.

#### Internet talk

No

### Is this an abstract from experimental collaboration?

Yes

### Name of experiment and experimental site

Belle II

## Is the speaker for that presentation defined?

Yes

#### **Details**

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