## XXV DAE-BRNS High Energy Physics Symposium 2022



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## Axial vector emitting two body nonleptonic weak decays of bottom meson

Monday 12 December 2022 14:00 (1 hour)

We investigate two-body nonleptonic weak decays of bottom meson involving heavy to heavy meson transitions into pseudoscalar and axial-vector mesons. The form factors, decay amplitudes, and branching ratios of CKM-favoured and suppressed modes are calculated in the relativistic and non-relativistic framework within the factorization hypothesis. We find that the branching ratios of several decays are of the order of measured experimental ratios. In the heavy quark limit, these results favor higher contributions from color-suppressed diagrams in order to explain the existing experimental data.

## Session

Quark and Lepton Flavour Physics

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