

## **B meson decays**

*Thursday 31 October 2024 14:50 (15 minutes)*

We study the rare decays corresponding to  $b \rightarrow d$  transition in the framework of the covariant confined quark model. The transition form factors for the channels  $B_{(0)} \rightarrow (\pi_{(0)}, \rho_{(0)}, \omega)$  and  $B_{0s} \rightarrow K_{(*)0}$  are computed in the entire dynamical range of momentum transfer squared. Using the form factors, we compute the branching fractions of the rare decays and our results are found to be matching well with the experimental data. We also compute the ratios of the branching fractions of the  $b \rightarrow s$  to  $b \rightarrow d$  rare decays using the inputs from previous papers on  $b \rightarrow s\ell\ell$  using this model.

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