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## Constraints on New Physics in $b \rightarrow s\nu\bar{\nu}$ decays

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Semileptonic flavor changing neutral current transitions of  $B$ -mesons with a pair of neutrinos in the final state are very accurately determined in the standard model (SM) and, thus, provide a sensitive probe for physics beyond the SM. Until recently, the poor tagging efficiency for the  $B \rightarrow K^{(*)}\nu\bar{\nu}$  modes made them less advantageous as a probe of new physics (NP) compared to the charged lepton counterparts. The most recent Belle II result on  $B^+ \rightarrow K^+\nu\bar{\nu}$  indicates a possible enhancement in the branching fraction of  $B^+ \rightarrow K^+\nu\bar{\nu}$ . Therefore we explore the possibilities of an enhancement in a set of observables for  $B \rightarrow K^{(*)}\nu\bar{\nu}$ . We considered the weak effective theory extended by vector effective operators both with light left- and right-handed neutrinos. The latter can appear in various SM extensions, e.g., in models with additional  $Z'$  boson.

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