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# Four-body baryonic $B \to \mathbf{B_1 B_1' B_2 B_2'}$ decays

*Friday, 2 June 2023 11:20 (25 minutes)*

We would like to present our recent study of the four-body baryonic $B \to \mathbf{B_1 B_1' B_2 B_2'}$ decay. We explain the branching fraction of $\bar{B}^0 \to p\bar{p}p\bar{p}$ measured by LHCb as small as $2.2 \times 10^{-8}$. We also predict the following branching fractions: $calB(B^- \to n\bar{p}p\bar{p}) = (8.4^{+2.1}_{-1.0} \pm 0.4^{+3.4}_{-1.9}) \times 10^{-8}$, $calB(B^- \to \Lambda\bar{p}p\bar{p}) = (3.7^{+0.3}_{-0.1} \pm 0.02^{+1.8}_{-1.3}) \times 10^{-7}$ and $calB(\bar{B}_s^0 \to \Lambda\bar{\Lambda}p\bar{p}) = (1.9^{+0.3}_{-0.1} \pm 0.01^{+1.1}_{-0.6}) \times 10^{-7}$, with several being accessible to experimental facilities.

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