Abstract Submitted
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Search for $B \to \phi\phi K$ decays at Belle[1] VIPIN GAUR, Virginia Tech, BELLE COLLABORATION — We report measurements of the branching fraction and CP violation asymmetry in $B \to \phi\phi K$ decays using the e^+e^- collision data that correspond to 772 million $B\bar{B}$ pairs collected by the Belle experiment at KEK. These decays are mediated by the FCNC transition $b \to s\bar{s}s$. It is suggested that one can observe large CP violation in the decays owing to the interference of potential non-SM amplitudes appearing in the quantum loop with the $b \to c$ tree-level transition of $B \to \eta_c K$, $\eta_c \to \phi\phi$. The results supersede the earlier Belle's measurement with nine times larger statistics and refined analysis techniques.

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