

Joined analysis of the $B \rightarrow PP$ and $B \rightarrow PV$ Decays

M. Sowa, P. Żenczykowski

The Henryk Niewodniczański Institute of Nuclear Physics
Polish Academy of Sciences
Radzikowskiego 152, 31-342 Kraków, Poland

We analyse simultaneously selected charmless B-meson decays into two pseudoscalar (PP) or one pseudoscalar and one vector meson (PV). Assuming, that the final state formation (i.e. PP or PV) is independent of the quark flavour in the internal penguin loop, we are able to connect both sectors. Considering the case with the negligible ratio C/T of the colour-suppressed factorisation amplitude C to the tree factorisation amplitude T , we determine penguin, tree and colour-suppressed amplitudes. We also argue, that the C/T ratio in $B \rightarrow \pi\pi$ should be identical to its counterpart in $B \rightarrow \pi\rho, \pi\omega$, which permits us to extract C/T and the penguins ratio directly from data.

E-mail: Magdalena.Sowa@ifj.edu.pl