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## Curious link of 3-body Exclusive and Inclusive CP Violation in Charmless B Decays

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The LHCb experiment has measured CP violation (CPV) across the Dalitz plot of charmless decays of B mesons to 3 charged tracks, namely in  $K\pi\pi$ ,  $KKK$ ,  $\pi\pi\pi$ , and  $\pi KK$  final states, with strikingly large CPV and strong variations with Dalitz variables. If one identifies these processes with  $b \rightarrow sqq(\bar{q})$ ,  $sss(\bar{q})$  and  $b \rightarrow dqq(\bar{q})$ ,  $dss(\bar{q})$ , where  $q = u, d$ , then the “sum rule” that requires two-loop absorptive parts by unitarity works well for inclusive  $b \rightarrow s$  CPV, but less well for the inclusive  $b \rightarrow d$  case. The situation is discussed and remedied, making the 30 years old unitarity argument valid to this day, and affirming quark-hadron duality.

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