



THEORY SEMINAR



Violation of CP symmetry in $D \rightarrow \pi\pi$: Experimental evidence vs Standard Model expectations

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ABSTRACT:

The LHCb experiment has recently established a clear CP-violating asymmetry in charm-meson two-body decays, with a size significantly larger than the existing estimates within the Standard Model. A meaningful theoretical description of the observable asymmetry must take into account the rescattering of the final decay products in order to generate the required strong phase shifts. We discuss the computation of these effects, based on a two-channel coupled dispersion relation and the available data on from the rescattering processes $\pi\pi \rightarrow \pi\pi$, $\pi K \rightarrow \pi K$ and $\pi\pi \rightarrow K$. We find that the predicted level of CP violation is much below the experimental value.

(Host: Jose Ramón Peláez)

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Wednesday September 27th , 14h30
Theoretical physics seminar room (2nd floor)

