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B0 B0\bar entanglement for an ideal experiment on the direct CP violation gamma phase

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B0 B0\bar entanglement offers a conceptual alternative to the single charged B-decay asymmetry for the measurement of the direct CP violating
gamma phase. With f =J/PsiK_L; J/PsiK_S and g =(PiPi)0; (Rho_LRho_L)0 the 16 time-ordered double decay rate Intensities to (f; g) depend on the relative phase between the the f- and g-decay amplitudes given by gamma at tree-level. Several constraining consistencies appear. An intrinsic accuracy of the method at the level of 1° could be achievable at Belle-II with an improved determination of the penguin amplitude to g-channels from existing facilities.

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