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## Time-dependent CP violation measurements in radiative penguin decays of B mesons at Belle and Belle II

The left-handed chiral structure of the W boson in Standard Model implies that CP violation parameters measured in radiative penguin decays of B mesons should be close to zero due to the suppression of right-handed polarised photon in the final state. Hence these decays are sensitive to physics beyond the standard model through new particles in the loop that can enhance the right-handed contribution. Measurements of decay time-dependent CP violation parameters in these decays can thus be an excellent probe for new physics.  $K^*$  ( $K_S \pi^0$ )  $\gamma$  modes have the largest branching fraction of these decays and hence offer the best sensitivities to these parameters. We present the latest status of time dependent measurement of these parameters in  $K_S \pi^0$   $\gamma$  decays of B mesons from the Belle and Belle II experiments.

### Field of contribution

Experiment

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