

The following sensitivities to mixing and CP violation observables are based on studies considering statistical error only but Belle-II that include also systematic uncertainties:

- $\Psi(3770)$: time-dependent analyses with a CM boost in the range of $\beta\gamma = 0.3 - 0.6$ and a SuperB-like vertex detector (radius of Layer0 at about 1.5 cm);
- $\Psi(4040)$: based on sensitivity studies of Bondar et al. [1] using time-integrated measurements of $D^0 \rightarrow K_s^0 \pi^+ \pi^-$ and $D^0 \rightarrow K^+ \pi^- \pi^0$;
- LHCb: based on sensitivity studies reported in [2]. Errors on x , y and $\arg(q/p)$ are based on $D^0 \rightarrow K_s^0 \pi^+ \pi^-$ and errors on $|q/p|$ are based on Wrong-sign/Right-sign $D^0 \rightarrow K \mu \nu$.
- Belle-II: based on sensitivity studies reported in [3]. Systematic uncertainties are included. Do not include $D^0 \rightarrow K^+ \pi^- \pi^0$, $D^0 \rightarrow K_s^0 K^+ K^-$ and $\Psi(3770)$ results from BES-III.

TABLE I: Estimated precision of mixing and CP violation observables expected at a Super τC running at $\Psi(3770)$ (3 ab^{-1}) and $\Psi(4040)$ (3 ab^{-1}) and compared with LHCb (50 fb^{-1}) and Belle-II (50 ab^{-1}) sensitivities.

Parameter	$\Psi(3770)$	$\Psi(4040)$	LHCb	Belle-II
$x(\%)$	0.02-0.05	0.03	0.015	0.08
$y(\%)$	0.02-0.03	0.03	0.010	0.04
$ q/p (\%)$	2-5	0.9	1	5
$\arg(q/p)(^\circ)$	2-3	0.8	3	2.6

[1] A. Bondar *et al.*, Phys. Rev. D 82, 034033 (2010).

[2] A. Bharucha *et al.*, arXiv:1208.3355

[3] A. Schwartz talk presented at Charm 2012 conference. <http://indico.phys.hawaii.edu/getFile.py/access?contribId=70&resId=0&materialId=slides&confId=338>