

Status report from section 14.7 α/ϕ_2

PBF meeting in KEK, 21-22 Nov 2011

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Double apology



The actual progress in writing is not significant ☹

Current section structure

- Theory (from Bigi)
 - Introduction
 - $B \rightarrow \pi\pi$ and isospin analysis
 - $B \rightarrow \rho\rho$ and isospin analysis (just few words)
 - Dalitz analysis in $B \rightarrow \rho\pi$
 - $B \rightarrow a_1\pi$, $B \rightarrow a_1 K$, and other SU(3) constraints
 - Time-dependent analyses of $B \rightarrow \pi\pi$ and $B \rightarrow \rho\rho$
 - $BR(B \rightarrow \pi\pi^0)$ & $BR(B \rightarrow \rho\pi^0)$
- Event reconstruction
- Experimental results in the same order as theory chapters
- Averaging results & Interpretations

Tasks sharing

	$\pi^+\pi^-$	$\pi^0\pi^0$	$(\rho\pi)^0$	$\rho^+\pi^0$	$\rho^+\rho^-$	$\rho^+\rho^0$	$\rho^0\rho^0$	$a_1\pi^-$
Belle	K.Prothmann	M.Sevior	A.Kusaka	J.Zhang	A.Somov	J.Zhang	P.Vanhoefer	J.Dalseno
BaBar	A.Telnov	A.Roodman	M.Graham	F.Wilson	A.Bevan	W.Gary	G.Vasseur	F.Palombo
Belle	770M	770M	449M	275M	535M	770M	770M	770M
BaBar	383M					465M	465M	

- All new Belle analyses are not finished yet
 - the text for them is brand new
- New “+” $\rho^+\rho^-$: the text was promised to be ready just before PBF meeting, but was not ready yet
- next “section” deadline - end of the next week

Problems

- The main problem from the Belle side is:
 - all analyses are in progress
 - some of them are in a good shape:
 - $a_1\pi$, $\rho^0\rho^0$, $\pi^0\pi^0$, $\pi^+\pi^0$ – must be ready for the Winter conf
 - but one in recently started:
 - $\rho^+\rho^0$ is to be ready for the Summer (not a paper, result!)
 - current $\rho^+\rho^0$ result is based on 85M dataset

Individual statuses

- $B \rightarrow \pi^0 \pi^0$
 - The analysis is in progress and as it was discussed with the authors we will allocate a proper space in the section
- $B \rightarrow \pi^+ \pi^-$
 - the text writing is in progress
- $B \rightarrow \rho^0 \rho^0$
 - the first version is provided, but more material should be added
- $B \rightarrow a_1 \pi$
 - in progress, the first version will be received in few days
- $B \rightarrow \rho \pi$
 - Yury pinged the authors, the current expectation is end of the month

Interpretation

- Under discussion how to do it:
 - isospin analysis only or add SU(3):
 - Belle measures only $a_1\pi$ (not a_1K), makes some complexity