

May 2004
Heavy Flavor Averaging Group

Compilation of Charmless Hadronic *CP* Asymmetries

Charged *B* Modes

In PDG2002

New since PDG2002 (preliminary)

New since PDG2002 (published)

RPP#	Mode	PDG2002 Avg.	BABAR	Belle	CLEO	New Avg.
86	$K^0\pi^+$	-0.05 ± 0.14	$-0.05 \pm 0.08 \pm 0.01$	$0.05 \pm 0.05 \pm 0.01$	$0.18 \pm 0.24 \pm 0.02$	0.03 ± 0.04
87	$K^+\pi^0$	-0.10 ± 0.12	$-0.09 \pm 0.09 \pm 0.01$	$0.06 \pm 0.06 \pm 0.02$	$-0.29 \pm 0.23 \pm 0.02$	-0.00 ± 0.05
88	$\eta'K^+$	-0.02 ± 0.07	$0.04 \pm 0.05 \pm 0.01$	$-0.02 \pm 0.07 \pm 0.01$	$0.03 \pm 0.12 \pm 0.02$	0.02 ± 0.04
90	ηK^+	New	$-0.52 \pm 0.24 \pm 0.01$			-0.52 ± 0.24
91	ηK^{*+}	New	$0.13 \pm 0.14 \pm 0.02$			0.13 ± 0.14
92	ωK^+	New	$-0.09 \pm 0.17 \pm 0.01$	$0.06^{+0.21}_{-0.18} \pm 0.01$		$-0.02^{+0.13}_{-0.12}$
96	$K^+\pi^+\pi^-$	New	$0.01 \pm 0.07 \pm 0.03$			0.01 ± 0.08
106	$K^{*+}\rho^0$	New	$0.20^{+0.32}_{-0.29} \pm 0.04$			$0.20^{+0.32}_{-0.29}$
116	$K^+K^-K^+$	New	$0.02 \pm 0.07 \pm 0.03$			0.02 ± 0.08
117	ϕK^+	-0.05 ± 0.20	$0.04 \pm 0.09 \pm 0.01$	$0.01 \pm 0.12 \pm 0.05$		0.03 ± 0.07
120	ϕK^{*+}	$-0.43^{+0.36}_{-0.31}$	$0.16 \pm 0.17 \pm 0.03$	$0.13 \pm 0.29^{+0.08}_{-0.11}$		0.15 ± 0.15
131	$\pi^+\pi^0$	New	$-0.03^{+0.18}_{-0.17} \pm 0.02$	$0.00 \pm 0.10 \pm 0.02$		-0.01 ± 0.09
132	$\pi^+\pi^-\pi^+$	New	$-0.39 \pm 0.33 \pm 0.12$			-0.39 ± 0.35
133	$\rho^0\pi^+$	New	$-0.19 \pm 0.11 \pm 0.02$			-0.19 ± 0.11
138	$\rho^+\pi^0$	New	$0.24 \pm 0.16 \pm 0.06$	$0.06 \pm 0.19 \pm 0.04$		0.16 ± 0.13
140	$\rho^+\rho^0$	New	$-0.19 \pm 0.23 \pm 0.03$	$0.00 \pm 0.22 \pm 0.03$		-0.09 ± 0.16
143	$\omega\pi^+$	-0.21 ± 0.19	$0.03 \pm 0.16 \pm 0.01$	$0.50^{+0.23}_{-0.20} \pm 0.02$	$-0.34 \pm 0.25 \pm 0.02$	0.10 ± 0.11
145	$\eta\pi^+$	New	$-0.44 \pm 0.18 \pm 0.01$			-0.44 ± 0.18
148	$\eta\rho^+$	New	$0.06 \pm 0.29 \pm 0.02$			0.06 ± 0.29

B^\pm/B^0 Admixture

RPP#	Mode	PDG2002 Avg.	BABAR	Belle	CLEO	New Avg.
53	$K^*\gamma$	-0.01 ± 0.07	$-0.044 \pm 0.076 \pm 0.012$	$-0.015 \pm 0.044 \pm 0.012$	$0.08 \pm 0.13 \pm 0.03$	-0.014 ± 0.038
63	$s\gamma$	-0.08 ± 0.11		$0.002 \pm 0.050 \pm 0.026$	$-0.08 \pm 0.11 \pm 0.02$	-0.014 ± 0.050

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Neutral *B* Modes

In PDG2002 New since PDG2002 (preliminary) New since PDG2002 (published)

RP#	Mode	PDG2002 Avg.	BABAR	Belle	CLEO	New Avg.
88	$K^+\pi^-$	-0.09 ± 0.06	$-0.107 \pm 0.041 \pm 0.013$	$-0.088 \pm 0.035 \pm 0.018$	$-0.04 \pm 0.16 \pm 0.02$	-0.095 ± 0.028
89	$K^0\pi^0$	New	$0.03 \pm 0.36 \pm 0.11$	$0.16 \pm 0.29 \pm 0.05$		0.11 ± 0.23
92	ηK^{*0}	New	$0.02 \pm 0.11 \pm 0.02$			0.02 ± 0.11
99	$K^+\rho^-$	New	$0.18 \pm 0.12 \pm 0.08$	$0.22^{+0.22+0.06}_{-0.23-0.02}$		0.19 ± 0.12
103	$K^{*+}\pi^-$	New			$0.26^{+0.33+0.10}_{-0.34-0.08}$	$0.26^{+0.34}_{-0.35}$
	$K^+\pi^-\pi^0$	New		$0.07 \pm 0.11 \pm 0.01$		0.07 ± 0.11
115	ϕK^{*0}	0.00 ± 0.27	$0.04 \pm 0.12 \pm 0.02$	$0.07 \pm 0.15^{+0.05}_{-0.03}$		0.05 ± 0.10
154	$\rho^+\pi^-$	New	$-0.11 \pm 0.06 \pm 0.03$	$-0.38^{+0.19+0.04}_{-0.21-0.05}$		-0.14 ± 0.06

Measurements of time-dependent *CP* asymmetries are listed on the Unitarity Triangle home page. (<http://www.slac.stanford.edu/xorg/hfag/triangle/index.html>)

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