Heavy Flavor Averaging Group
May 2013

Compilation of B^+ Baryonic Branching Fractions

All branching fractions are in units of 10^{-6}; limits are 90% CL

In PDG2012 | New since PDG2012 (preliminary) | New since PDG2012 (published)

RPP#	Mode	PDG2012 Avg.	BABAR	Belle	LHCb	New Avg.
391	$p\bar{p}\pi^+$	1.62 ± 0.20	$1.69 \pm 0.29 \pm 0.26$ †	$1.57^{+0.17}_{-0.15} \pm 0.12$ §		$1.60^{+0.18}_{-0.17}$
394	$p\bar{p}K^+$	5.9 ± 0.5	$6.7 \pm 0.5 \pm 0.4$ †	$5.00^{+0.24}_{-0.22} \pm 0.32$ §	$4.46 \pm 0.21 \pm 0.27$ §	4.97 ± 0.24
395	$\Theta^{++}\bar{p}$ [1]	< 0.091	< 0.09	< 0.091		< 0.09
396	$f_J(2221)K^+$ [2]	< 0.41		< 0.41		< 0.41
397	$p\bar{\Lambda}(1520)$	< 1.5	< 1.5			< 1.5
399	$p\bar{p}K^{*+}$	$3.6^{+0.8}_{-0.7}$	$5.3 \pm 1.5 \pm 1.3$ †	$3.38^{+0.73}_{-0.60} \pm 0.39$ ‡		$3.64^{+0.79}_{-0.70}$
400	$f_J(2221)K^{*+}$ [2]	< 0.77	< 0.77			< 0.77
401	$p\bar{\Lambda}$	< 0.32		< 0.32		< 0.32
403	$p\bar{\Lambda}\pi^0$	$3.00^{+0.7}_{-0.6}$		$3.00^{+0.61}_{-0.53} \pm 0.33$		$3.00^{+0.69}_{-0.62}$
404	$p\bar{\Sigma}(1385)^0$	< 0.47		< 0.47		< 0.47
405	$\Delta^+\bar{\Lambda}$	< 0.82		< 0.82		< 0.82
407	$p\bar{\Lambda}\pi^+\pi^-$ (NR)	5.9 ± 1.1		$5.92^{+0.88}_{-0.84} \pm 0.69$		$5.92^{+1.12}_{-1.09}$
408	$p\bar{\Lambda}\rho^0$	4.8 ± 0.9		$4.78^{+0.67}_{-0.64} \pm 0.60$		$4.78^{+0.90}_{-0.88}$
409	$p\bar{\Lambda}f_2(1270)$	2.0 ± 0.8		$2.03^{+0.77}_{-0.72} \pm 0.27$		$2.03^{+0.82}_{-0.77}$
410	$\Lambda\bar{\Lambda}\pi^+$	< 0.94		< 0.94 §		< 0.94 §
411	$\Lambda\bar{\Lambda}K^+$	3.4 ± 0.6		$3.38^{+0.41}_{-0.36} \pm 0.41$ ‡		$3.38^{+0.58}_{-0.55}$
412	$\Lambda\bar{\Lambda}K^{*+}$	$2.2^{+1.2}_{-0.9}$		$2.19^{+1.13}_{-0.88} \pm 0.33$ §		$2.19^{+1.18}_{-0.94}$
413	$\bar{\Delta}^0 p$	< 1.38		< 1.38 §		< 1.38 §
414	$\Delta^{++}\bar{p}$	< 0.14		< 0.14 §		< 0.14 §

§Di-baryon mass is less than 2.85 GeV/c^2; † Charmonium decays to $p\bar{p}$ have been statistically subtracted;
‡ The charmonium mass region has been vetoed; [1] $\Theta(1540)^{++} \to K^+p$ (pentaquark candidate);
[2] Product BF — daughter BF taken to be 100%

Heavy Flavor Averaging Group
May 2013

Compilation of B^0 Baryonic Branching Fractions

All branching fractions are in units of 10^{-6}; limits are 90% CL

In PDG2012 | New since PDG2012 (preliminary) | New since PDG2012 (published)

RPP#	Mode	PDG2012 Avg.	BABAR	Belle	LHCb	New Avg.
381	$p\overline{p}$	< 0.11	< 0.27	< 0.11		< 0.11
383	$p\overline{p}K^0$	2.66 ± 0.32	$3.0 \pm 0.5 \pm 0.3$ †	$2.51^{+0.35}_{-0.29} \pm 0.21$ ‡		$2.66^{+0.34}_{-0.32}$
384	$\Theta^+\overline{p}$ [1]	< 0.05	< 0.05	< 0.23		< 0.05
385	$f_J(2221)K^0$ [2]	< 0.45	< 0.45			< 0.45
386	$p\overline{p}K^{*0}$	$1.24^{+0.28}_{-0.25}$	$1.47 \pm 0.45 \pm 0.40$ †	$1.18^{+0.29}_{-0.25} \pm 0.11$ ‡		$1.24^{+0.28}_{-0.25}$
387	$f_J(2221)K^{*0}$ [2]	< 0.15	< 0.15			< 0.15
388	$p\overline{\Lambda}\pi^-$	3.14 ± 0.29	$3.07 \pm 0.31 \pm 0.23$	$3.23^{+0.33}_{-0.29} \pm 0.29$		$3.14^{+0.29}_{-0.28}$
389	$p\overline{\Sigma}(1385)^-$	< 0.26		< 0.26		< 0.26
390	$\Delta^0\overline{\Lambda}$	< 0.93		< 0.93		< 0.93
391	$p\overline{\Lambda}K^-$	< 0.82		< 0.82		< 0.82
392	$p\overline{\Sigma}^0\pi^-$	< 3.8		< 3.8		< 3.8
393	$\overline{\Lambda}\Lambda$	< 0.32		< 0.32		< 0.32
394	$\overline{\Lambda}\Lambda K^0$	$4.8^{+1.0}_{-0.9}$		$4.76^{+0.84}_{-0.68} \pm 0.61$ ‡		$4.76^{+1.04}_{-0.91}$
395	$\Lambda\overline{\Lambda}K^{*0}$	$2.5^{+0.9}_{-0.8}$		$2.46^{+0.87}_{-0.72} \pm 0.34$ ‡		$2.46^{+0.93}_{-0.80}$

† Charmonium decays to $p\bar{p}$ have been statistically subtracted; ‡ The charmonium mass region has been vetoed; [1] $\Theta(1540)^+ \to pK^0$ (pentaquark candidate); [2] Product BF — daughter BF taken to be 100%.

Charmless Baryonic Decay References

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