

# B-particle organization

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Many measurements of  $B$  decays involve admixtures of  $B$  hadrons. Previously we arbitrarily included such admixtures in the  $B^\pm$  section, but because of their importance we have created two new sections: “ $B^\pm/B^0$  Admixture” for  $\Upsilon(4S)$  results and “ $B^\pm/B^0/B_s^0/b$ -baryon Admixture” for results at higher energies. Most inclusive decay branching fractions and  $\chi_b$  at high energy are found in the Admixture sections.  $B^0-\bar{B}^0$  mixing data are found in the  $B^0$  section, while  $B_s^0-\bar{B}_s^0$  mixing data and  $B-\bar{B}$  mixing data for a  $B^0/B_s^0$  admixture are found in the  $B_s^0$  section.  $CP$ -violation data are found in the  $B^\pm$ ,  $B^0$ , and  $B^\pm B^0$  Admixture sections.  $b$ -baryons are found near the end of the Baryon section. Recently, we also created a new section: “ $V_{cb}$  and  $V_{ub}$  CKM Matrix Elements.”

The organization of the  $B$  sections is now as follows, where bullets indicate particle sections and brackets indicate reviews.

[Production and Decay of  $b$ -flavored Hadrons]

[A Short Note on HFAG Activities]

- $B^\pm$ 
  - mass, mean life
  - branching fractions
  - polarization in  $B^\pm$  decay
  - $CP$  violation
- $B^0$ 
  - mass, mean life
  - branching fractions
  - [Polarization in  $B$  decay]
  - polarization in  $B^0$  decay
  - [ $B-\bar{B}$  Mixing]
  - $B^0-\bar{B}^0$  mixing
  - $CP$  violation
- $B^\pm B^0$  Admixture
  - branching fractions,  $CP$  violation
  - $CP$  violation
- $B^\pm/B^0/B_s^0/b$ -baryon Admixture
  - mean life
  - production fractions
  - branching fractions
  - $\chi_b$  at high energy
  - production fractions in hadronic  $Z$  decay
- $V_{cb}$  and  $V_{ub}$  CKM Matrix Elements

[Determination of  $V_{cb}$  and  $V_{ub}$ ]

- $B^*$   
mass
- $B_1(5721)^0$   
mass
- $B_J^*(5732)$   
mass, width
- $B_2(5747)^0$   
mass
- $B_s^0$   
mass, mean life  
branching fractions  
polarization in  $B_s^0$  decay  
 $B_s^0$ - $\bar{B}_s^0$  mixing
- $B_s^*$   
mass
- $B_{sJ}^*(5850)$   
mass, width
- $B_c^\pm$   
mass, mean life  
branching fractions

At the end of Baryon Listings:

- $\Lambda_b$   
mass, mean life  
branching fractions
  - $\Sigma_b, \Sigma_b^*$   
mass
  - $\Xi_b^0, \Xi_b^-$   
mean life
  - $\Omega_b^-$   
mass, mean life  
branching fractions
  - $b$ -baryon Admixture  
mean life  
branching fractions
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