

B Factory Perspective

- B Factories will end operation soon, but large community of physicists will continue mining the unprecedented dataset well into the LHC era
 - It would be interesting to reverse the normal thinking: if/when we see a signal at LHC, what does it imply for the B Factory data?
 - Is it possible to do a “what if” exercise?
- In the mean time: are we fully characterizing the B Factory impact?
 - What is the impact of $A_{cp}(b \rightarrow s\gamma)$? Is the isospin asymmetry useful?
 - B_d mixing constrains NP in the box. In light of new results from the B Factories, what are the constraints on NP in $b \rightarrow d(g, \gamma)$
 - What is the impact of the new results on $B \rightarrow D^{(*)}\tau\nu$?
- There are “exotic” opportunities at low energy
 - (really) low-mass Higgs ($m_\tau < m_H < m_B$)
 - Lepton non-universality
 - Missing energy ($B \rightarrow$ invisible)
 - “single photon” events
 - Is there any connection to potential LHC physics?