

# Status of PBF “Vertexing” section

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introduction



decay tree  
reconstruction



delta-t  
measurement

# Existing public documentation

- for Babar

- Aubert et al., “*A Study of time dependent CP violating asymmetries and flavor oscillations in neutral B decays at the Upsilon(4S)*”, **PRD66:032003,2002, hep-ex/0201020**

→ quite extensive description of delta-t measurement, resolution function, calibration

- for Belle

- H.Tajima et al., “*Proper-time Resolution Function for Measurement of Time Evolution of B Mesons at the KEK B-Factor*”.Nucl.Instrum.Meth. A533 (2004) 370-386,

→ even more extensive description of delta-t measurement, resolution function

- others?

- Paul Avery's stuff is a source of inspiration, but never published
- could refer to some papers by Billoir/Fruhworth
- Babar doesn't actually quote anything but W. Hulsbergen, “*Decay chain fitting with a Kalman filter*”, NIM A552 (2005)

# Overlap with/dependence on other sections

- section “***B meson reconstruction***”
  - what is in this section?
- section “***Mixing and time-dependent analysis***”
  - tag B vertex reconstruction
  - delta-t measurement
  - resolution function
- I am missing a section on ***track reconstruction***
  - cannot do any vertexing without tracks ...

# Status

- there isn't more than what you have just seen
- foresee no progress at short time scale
  - I am myself rather occupied at the lhc
  - did not succeed to contact Belle editor before this meeting