

# Status, guidelines, and technical issues for “The Physics of the B-Factories”

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for the general editors

5th Physics of the B-Factories Workshop, KEK, 21st November 2011



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# Using SVN

- all editors should be using this system
- most contributors should be using this system
- a few late-joining members are still being added:  
*please consult Soeren at this meeting* if there are issues
- **instructions are available:**

**to join:** <http://www.slac.stanford.edu/xorg/BFLB/bflb-new-account-help.html>

**for use:** <http://www.slac.stanford.edu/xorg/BFLB/computing-svn.html>

- when switching from standalone work to integrated work, please be careful with commands in the source:  
the files are structured differently  
(e.g. no `\end{document}` in user SVN files!)
- SLAC computer retirement problem: `svn switch --relocate`  
`svn+ssh://your-login@noric10.slac.stanford.edu/nfs/slac/g/bflb/svn/Book/trunk`  
`svn+ssh://your-login@yakut16.slac.stanford.edu/nfs/slac/g/bflb/svn/Book/trunk`  
in your checked-out trunk (for established users; new users are )

# Using the Hypernews

- likewise, communication on the book should be on HN by default
- <http://hypernews.slac.stanford.edu/HyperNews/BFLB/top.pl>
- please subscribe to sections that overlap with yours
- encourage contributors to join:  
<http://hypernews.slac.stanford.edu/HyperNews/BFLB/add-member.pl>
- please post to the Hypernews:
  - with any questions
  - in response to Hypernews discussion
  - [own forum] when you make a substantial update
  - [other forum] when your own changes may be of interest there
  - for discussion with other section- and general-editors
- the subscription system can be flaky:
  - please check that you receive posts to subscribed sections
  - if not, unsubscribe and then subscribe



# Style (1): equation numbers

- we have decided to number equations *within sections*, so that (say) Eq. (238) becomes Eq. (13.5.6)
  - will make referring to / finding equations easier
  - this has been implemented in higher-level .tex files
  - section editors / contributors “do not have to do anything”
  - there will be less horizontal space on the line
  - please start citing equations in others’ sections!
  - see next point about labels . . .
- correct equation-reference style:
  - “Equation (13.5.6)” at the start of a sentence
  - “Eq. (13.5.6)” elsewhere
  - spelling it out as “equation (13.5.6)” acceptable if needed
  - “Eq. (13.5.6)” but “Eqs (13.5.6) and (13.6.1)”



## Style (2): labels

Please use the *standard convention* for every label you define:  
(see `pbf-standalone.pdf`)

Labels for tables, figures, and equations should be constructed in the following tripartite form:

`<TYPE>:<SECLABEL>:<NAME>`

where

`<TYPE>` is one of TAB, FIG, EQ;  
`<SECLABEL>` is the principal label of the sectional unit, taken from Tables 3 and 4; and  
`<NAME>` is a name chosen by the contributor, which must of course be unique within that sectional unit for that kind of object.

Acceptable examples thus include

- for tables:  
TAB: BRECON: MODES-BABAR  
TAB: VXB: SUMMARY  
TAB: Y5S: BRANCHINGS

- for figures:  
FIG: PID: CERENKOV  
FIG: PHI1: JPSI-KS-BELLE  
FIG: XYZ: Y4260-BABAR-DISCOVERY
- for equations:  
EQ: DALITZ: BLATT-WEISSKOPF  
EQ: CPT: SM-EXTENSION  
EQ: TAU: SECOND-CLASS

Labels for (sub-)sections defined by contributors — at a logical level *below* (i.e. within) those listed in Tables 3 and 4 — should be constructed in the bipartite form

`<SECLABEL>:<SUBNAME>`

with some arbitrary examples being

MCPROD: RUNPERIODS-BELLE  
ANGULAR: TRANSVERSITY  
MIXING: EPR  
QED: R



## Style (3): some conventions

- units: please use  $\text{GeV}/c$  and  $\text{GeV}/c^2$  etc.
- tau lepton:
  - “tau” or “tau lepton” where you’d say “electron” or “muon”
  - “ $\tau^+$ ” where you’d say “ $e^+$ ” or “ $\mu^+$ ”
  - avoid just “ $\tau$ ” in main text
- look at `pbf-standalone.pdf` for the style guide
  - no need to make tables small (!!)
  - other comments?
- please add **Section writers:** to your section, after the **Editors:** entry  
— we will standardise this in due course



# Working with the three bibliographies

- reminder: there are three bibliographies
  - for Belle papers: `pbf-bib-belle.bib` `\citepBelle` *etc.*
  - for BaBar papers: `pbf-bib-babar.bib` `\citepBaBar` *etc.*
  - for other (e.g. theory) papers: `pbf-bib-other.bib` `\citep` *etc.*
- Belle/PLB papers had been missing: now fixed (thanks Fergus)
- many duplications in the .bib files: will be fixed this coming week
- some private biblio lists, esp. from theorists ... being merged
- adding papers on your own:
  - see instructions in `pbf-bib-belle.bib`
  - basically: use SPIRES output, `bibtex` style
  - $\LaTeX$  of title, *etc.* often needs to be fixed
  - occasionally, the tag needs to be fixed
  - be careful about duplicates (e.g. `@Article` and `@article` ...)
  - check that the citation then *works* in the output
- if you have `bibtex` experience/know-how, please fix problems yourself
- if you don't, or it doesn't work, please post problems to HN (e.g. theory-paper problem fixed o/night: thanks Gagan for the alert)





# Resources to help you

- `pbf-sym-table.pdf` (in trunk) shows you `pbf-sym.tex` symbols
- `pbf-Glossary.pdf` ; source `Glossary/pbf-Glossary.tex` for technical terms: things your Prof. / colleague / student need to know
- the various “Tools and methods” chapters:
  - please read those relevant to your section & refer to them
  - also, look at results sections preceding / relevant to yours

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There will be changes to the sectioning after this meeting:

- removal of at least one redundant section
- reorganisation of “Tools and methods”:

Current organisation:

```
-----  
4. Vertexing  
5. Multivariate discriminants  
  5.1 Analysis optimization  
  5.2 PID  
  5.3 Flavor tagging  
  5.4 Background discrimination  
6. B-meson reconstruction  
7. Mixing and time-dependent analysis... etc  
.. etc
```

Proposed new organisation:

```
-----  
4. Multivariate methods and analysis optimization [a]  
5. Charged particle identification [b]  
6. Vertexing  
7. B-meson reconstruction [c]  
8. B-flavor tagging [b]  
9. Background suppression for B-decays [b,c]  
10. Mixing and time-dependent analysis
```



# Reminder: Schedule for completion

1st workshop	30–31 Oct 2009	SLAC	plan/sections
2nd workshop	17–18 May 2010	KEK	content, style
3rd workshop	01–02 Oct 2010	U. Mainz	working text in SVN
4th workshop	11–12 Apr 2011	KEK	cancelled: recovery
4th workshop	30-Jul/01-Jul 2011	Annecy	review & feedback
status review	05–07 Sep 2011	gen. eds	follow-up w section eds
text deadline	07 Nov 2011	(SVN)	partially (!) met
5th wkshp	21-22 Nov 2011	KEK	21 registrants
full review	12–16 Jan 2012	gen. eds	intensive reading/review
proofreading	early 2012		
→ publisher	mid-2012		
release	end-2012		

If there are results for inclusion, going to journal after the end of this year,



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- they will be considered on a case-by-case basis
- **you should know about them; so should we; please notify/discuss**

