



# Sharing Knowledge: MediaWiki and other collaborative tools

M. Bellis

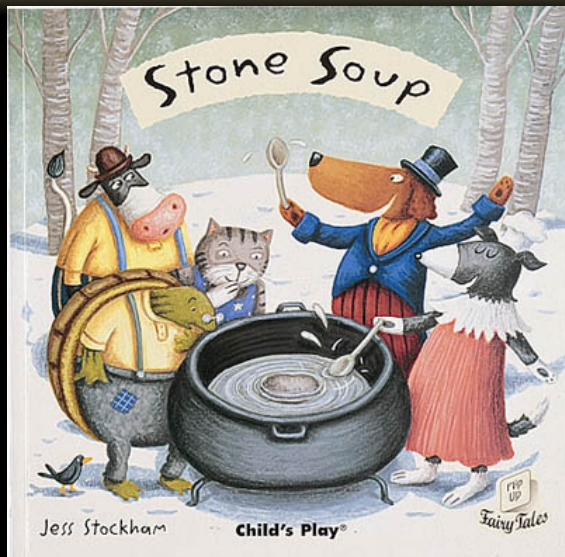
Department of Physics  
Stanford University

June 21<sup>st</sup>, 2011



1 WIKIS

2 GOOGLE TOOLS



What's a good stone? Who's bringing the pot?

# What is a Wiki?

- **Wiki** - Hawaiian word for “fast” .
- First Wiki from Ward Cunningham in 1995 (*WikiWikiWeb*)<sup>1</sup>

---

<sup>1</sup> <http://en.wikipedia.org/wiki/Wiki>

# What is a Wiki?

- **Wiki** - Hawaiian word for “fast” .
- First Wiki from Ward Cunningham in 1995 (*WikiWikiWeb*)<sup>1</sup>
- Allows for creating and editing content on a website **in a browser**.

---

<sup>1</sup> <http://en.wikipedia.org/wiki/Wiki>

# What is a Wiki?

- **Wiki** - Hawaiian word for “fast” .
- First Wiki from Ward Cunningham in 1995 (*WikiWikiWeb*)<sup>1</sup>
- Allows for creating and editing content on a website **in a browser**.
- Various *markup languages* for changing style of material.

---

<sup>1</sup> <http://en.wikipedia.org/wiki/Wiki>

# What is a Wiki?

- **Wiki** - Hawaiian word for “fast” .
- First Wiki from Ward Cunningham in 1995 (*WikiWikiWeb*)<sup>1</sup>
- Allows for creating and editing content on a website **in a browser**.
- Various *markup languages* for changing style of material.
- Wikipedia is most ubiquitous (best?) example.
  - Makes use of the MediaWiki implementation.  
<http://www.mediawiki.org/wiki/MediaWiki>

---

<sup>1</sup> <http://en.wikipedia.org/wiki/Wiki>

- Prior to working for Stanford/joining BaBar, post-doc at Carnegie Mellon University.
  - Baryon-meson Partial Wave Analysis with data from Jefferson Lab.



## My Wiki experience

- Prior to working for Stanford/joining BaBar, post-doc at Carnegie Mellon University.
  - Baryon-meson Partial Wave Analysis with data from Jefferson Lab.
- Used a laptop MediaWiki installation for notes.

## My Wiki experience

- Prior to working for Stanford/joining BaBar, post-doc at Carnegie Mellon University.
  - Baryon-meson Partial Wave Analysis with data from Jefferson Lab.
- Used a laptop MediaWiki installation for notes.
- Installed a MediaWiki setup for our local analysis group (4-6 users).

# My Wiki experience

- Prior to working for Stanford/joining BaBar, post-doc at Carnegie Mellon University.
  - Baryon-meson Partial Wave Analysis with data from Jefferson Lab.
- Used a laptop MediaWiki installation for notes.
- Installed a MediaWiki setup for our local analysis group (4-6 users).
- Jefferson Lab now supports MediaWiki for internal use and is *widely used by the community*.
  - Hall-B  
[http://clasweb.jlab.org/wiki/index.php/Main\\_Page](http://clasweb.jlab.org/wiki/index.php/Main_Page)
  - Hall-D  
[http://www.jlab.org/Hall-D/software/wiki/index.php/Main\\_Page](http://www.jlab.org/Hall-D/software/wiki/index.php/Main_Page)

- Joined BaBar in 2008, *after* data taking had ended.
- Took over large-scale Monte Carlo production (SP manager).
- Joined **Long Term Data Analysis (LTDA)** effort.

- Joined BaBar in 2008, *after* data taking had ended.
- Took over large-scale Monte Carlo production (SP manager).
- Joined **Long Term Data Analysis (LTDA)** effort.
  - Manpower/expertise diaspora.
  - How to centralize and **flatten** knowledge?
  - How to make spatially/temporally separated collaborative efforts easier?

- Joined BaBar in 2008, *after* data taking had ended.
- Took over large-scale Monte Carlo production (SP manager).
- Joined **Long Term Data Analysis (LTDA)** effort.
  - Manpower/expertise diaspora.
  - How to centralize and **flatten** knowledge?
  - How to make spatially/temporally separated collaborative efforts easier?
- Paraphrased quotes when I tried to get a Wiki at SLAC for BaBar.
  - *"Wikis won't solve documentation problems."*
  - *"SLAC won't support them."*
  - *"Editing a Wiki is no different than logging into SLAC and editing the HTML code."*
  - *"I tried for two years to get one up. Good luck!"*

- Joined BaBar in 2008, *after* data taking had ended.
- Took over large-scale Monte Carlo production (SP manager).
- Joined **Long Term Data Analysis (LTDA)** effort.
  - Manpower/expertise diaspora.
  - How to centralize and **flatten** knowledge?
  - How to make spatially/temporally separated collaborative efforts easier?
- Paraphrased quotes when I tried to get a Wiki at SLAC for BaBar.
  - *"Wikis won't solve documentation problems."*
  - *"SLAC won't support them."*
  - *"Editing a Wiki is no different than logging into SLAC and editing the HTML code."*
  - *"I tried for two years to get one up. Good luck!"*
- Full-court press for a Wiki starting in 2009 for both current and LTDA effort.
- Goal was to migrate old HTML pages to a more modern framework.
  - We were offered Confluence, but we (many, but not all) preferred MediaWiki.

- Why MediaWiki?



- Why MediaWiki?
  - User community is trained in navigation by Wikipedia.
  - Especially comfortable for new collaborators/students.

- Why MediaWiki?
  - User community is trained in navigation by Wikipedia.
  - Especially comfortable for new collaborators/students.
  - Large user base motivates many good tutorials/help sites/forums.
    - Suggests that future migration will be standardized.

- Why MediaWiki?
  - User community is trained in navigation by Wikipedia.
  - Especially comfortable for new collaborators/students.
  - Large user base motivates many good tutorials/help sites/forums.
    - Suggests that future migration will be standardized.
  - Virtual support system rivals commercial support.
  - Open-source.

- Why MediaWiki?
  - User community is trained in navigation by Wikipedia.
  - Especially comfortable for new collaborators/students.
  - Large user base motivates many good tutorials/help sites/forums.
    - Suggests that future migration will be standardized.
  - Virtual support system rivals commercial support.
  - Open-source.
  - Active discussion of security issues.
  - New features being added.

- Why MediaWiki?
  - User community is trained in navigation by Wikipedia.
  - Especially comfortable for new collaborators/students.
  - Large user base motivates many good tutorials/help sites/forums.
    - Suggests that future migration will be standardized.
  - Virtual support system rivals commercial support.
  - Open-source.
  - Active discussion of security issues.
  - New features being added.
- Why not Confluence?
  - *Anecdotally*, people were not enamored of it.

- Why MediaWiki?
  - User community is trained in navigation by Wikipedia.
  - Especially comfortable for new collaborators/students.
  - Large user base motivates many good tutorials/help sites/forums.
    - Suggests that future migration will be standardized.
  - **Virtual support system rivals commercial support.**
  - **Open-source.**
  - Active discussion of security issues.
  - New features being added.
- Why not Confluence?
  - *Anecdotally*, people were not enamored of it.
- Why not TWiki, TiddlyWiki, etc.?
  - **Follow the big dog (Wikipedia).**

- BaBar Wiki started use in 2010  
[https://bbr-wiki.slac.stanford.edu/bbr\\_wiki/index.php/Main\\_Page](https://bbr-wiki.slac.stanford.edu/bbr_wiki/index.php/Main_Page)
  - **Much thanks to Tina Cartaro, Homer Neal, Booker Bense, Igor Gaponenko and SCCS for helping set this up!**

- BaBar Wiki started use in 2010  
[https://bbr-wiki.slac.stanford.edu/bbr\\_wiki/index.php/Main\\_Page](https://bbr-wiki.slac.stanford.edu/bbr_wiki/index.php/Main_Page)
  - **Much thanks to Tina Cartaro, Homer Neal, Booker Bense, Igor Gaponenko and SCCS for helping set this up!**
- BaBar Wiki is tied to SLAC's Unix authentication system.
- MediaWiki extension.
  - <https://github.com/mistermarco/mediawiki-webauth>



- BaBar Wiki started use in 2010
  - [https://bbr-wiki.slac.stanford.edu/bbr\\_wiki/index.php/Main\\_Page](https://bbr-wiki.slac.stanford.edu/bbr_wiki/index.php/Main_Page)
    - **Much thanks to Tina Cartaro, Homer Neal, Booker Bense, Igor Gaponenko and SCCS for helping set this up!**
- BaBar Wiki is tied to SLAC's Unix authentication system.
- MediaWiki extension.
  - <https://github.com/mistermarco/mediawiki-webauth>
- As of 06/16/11:
  - **337** content pages.
  - **342** uploaded files.
  - **7278** edits.
  - **147** registered users.
  - **33** have edited it.
  - **25713** views.

The BaBar Homepage

www.slac.stanford.edu/BFROOT

[Matt Bellis](#)
[Docs](#)
[Gmail](#)
[Calendar](#)
[BaBarWiki](#)
[BurchatWiki](#)
[Voice](#)
[Inspire](#)
[NIJ FF](#)
[SLAC FF](#)
[GIFFL](#)
[Other Bookmarks](#)

|                           |   |                               |
|---------------------------|---|-------------------------------|
| <a href="#">Personnel</a> |  | <a href="#">Organization</a>  |
| <a href="#">Glossary</a>  |   | <a href="#">Detector</a>      |
| <a href="#">Sitemap</a>   |   | <a href="#">Computing</a>     |
| <a href="#">Search</a>    |   | <a href="#">Physics</a>       |
| <a href="#">Hypernews</a> |   | <a href="#">Documentation</a> |

This home page is intended for our collaborators. It is hosted at [SLAC](#) and [RAL](#). Public pages for SLAC, BaBar, and PEP-II are available below.

The BaBar detector was built at [SLAC](#) to study the millions of B mesons produced by the [PEP-II](#) storage ring. The BaBar Collaboration consists of approximately 600 physicists and engineers from 75 institutions in 10 countries.

[BaBar Public Information & Visitor Pages](#)

Try the new *BaBar Wiki* ... currently under development; UNIX password required.




**Safety:** [\[Safety & Compliance Reference\]](#)

**Quick Links:** [\[Joining BaBar\]](#) [\[Offline Users Workbook\]](#) [\[CM2 Intro\]](#) [\[BaBar Web Info\]](#) [\[SLUC\]](#)

**Employment:** [\[Employment Opportunities in High Energy Physics\]](#) [\[Employment Opportunities at SLAC\]](#)

**External links:** [\[HEPIC\]](#) [\[Databases\]](#) [\[HFAG\]](#) [\[PDG\]](#) [\[HEP preprints\]](#)

**Stanford Guest House (at SLAC):**  [accepting reservations!](#)

**Events of Interest:** [\[Physics Events\]](#)

**Service Task Openings:** [\[Service Task\]](#)

|   |   |
|---|---|
|  | Research Associate position opened for Babar at SLAC. See one of the following links for details: <a href="#">BaBar RA</a> linked from the <a href="#">SLAC Career pages</a> or from <a href="#">SPIRES</a>   |
|  | We have several service tasks that urgently need to be filled. Please see the <a href="#">Service Task Openings</a> page for more information.  |
|  | As mentioned in the <a href="#">SLAC Today Article</a> , please make sure that you have completed the online <a href="#">Cyber Security Basics Course</a> before the end of the year or your account will be disabled. At the bottom of the page at the above link there is also a link for UNIX users. |
| <b>New!</b>   | <a href="#">Babar 2010 Calendar</a> , <a href="#">Babar 2011 Calendar</a>   |
| <b>New!</b>   | <a href="#">ICHEP 2010 - July 2010, 22nd to 28th, Paris, France</a>   |
| <b>New!</b>   | <a href="#">BaBar Collaboration at Berlin, October 4-7, 2010</a> , Agenda ( <a href="#">pdf</a> / <a href="#">html</a> ) (Deadline For Registration -August 23rd, 2010)   |
| <b>New!</b>   | Proposal Babar-Belle Legacy Book. -White Paper 03-2009 ( <a href="#">pdf</a> )  |
| <b>New!</b>   | The BaBar Collaboration's <a href="#">statement</a> for the public explaining the 2008 Nobel Prize in Physics is now available.   |

The **2008 Nobel Prize in Physics** was awarded to Kobayashi, Makiawa, and Nambu for their work on symmetry breaking and CP violation. Understanding the origins experimental programs of both the BaBar and Belle experiments, which were mentioned by name in the [Nobel press](#)

[www.slac.stanford.edu/BFROOT/BABAR.html](http://www.slac.stanford.edu/BFROOT/BABAR.html)

BABAR Computing System Home Page

(last updated 21 September 2009)

The BABAR Computing System includes the following elements:

- **offline** (CPU, network, storage),
- **software environment** in which the computing work is done (including code development/management, user concerns, distributed computing issues, etc.), and the
- **collaboration code** itself (on-line, reconstruction, simulation, etc.).

This page is an entry point for more information about this system.

To go to the *OLD Computing Home Page* click [here](#).

**Current BaBar Computing Service Task Openings:**

| Task Title                         | Start Date | Skills   |
|------------------------------------|------------|--|
| SLAC Simulation Production Manager | ASAP       | experience with BaBar framework, perl, monitor production daily and communicate with managers at other sites |
| SLAC Skim Production Manager       | 9/2010     | experience with BaBar framework, perl, monitor production daily  |
| DOE IFR Expert                     | ASAP       |  |
| DOE SVT Expert                     | ASAP       |  |
| DOE ROM                            | ASAP       |  |

For more details on current Computing Service Task Openings click [here](#).

**Fast links:**

[www.slac.stanford.edu/BFROOT/www/wit\\_root/slac.html](http://www.slac.stanford.edu/BFROOT/www/wit_root/slac.html)

BABAR Computing Sy... x

www.slac.stanford.edu/BROOT/www/Computing/index.html

Matt Bellis Docs Gmail Calendar BaBarWiki BurchatWiki Voice Inspire NIJ FF SLAC FF GIFFL Other Bookmarks

[Ext Processing](#)  
[Run Control](#)  
[Calibration](#)  
[Databases](#)  
[Offline](#)  
[Workbook](#)  
[Coding Standards](#)  
[Simulation](#)  
[Reconstruction](#)  
[Prompt Reco](#)  
[BaBar Grid](#)  
[Data Distribution](#)  
[Beta & BetaTools](#)  
[Kanga & Root](#)  
[Analysis Tools](#)  
[RootFit ToolKit](#)  
[Data Management](#)  
[Data Quality](#)  
[Event display](#)  
[Event Browser](#)  
[Code releases](#)  
[Databases](#)

Check this page for HTML 4.01 Transitional compliance with the W3C Validator (More checks...)

[here](#)

**Fast links:**

- [BaBar Wiki \(Home, Computing, Long Term Data Access \(LTA\)\)](#)
  - [instructions](#) for initial setup to use the BaBar Wiki site
- [R24 preprocessing main monitoring page](#)
- [Releases \(Release Summary, Lettered builds, summary of release notes\)](#)
- [Online](#)
- [Offline \(Reco, Simulation, QA, Data Quality, Software Admin, WebSET\)](#)
- [Operations \(Production, PromptReco, CondDB\)](#)
- [Distributed \(Tier A data, Bookkeeping, PromptReco, Databases\)](#)
- [Tools \(SRT, GUIs\)](#)
- [Web \(Information, Authorship guidelines, Tools, Web Usage Statistics\)](#)
- [Misc \(HyperNews, Training, New Users, absence\)](#)
- [Monitoring \(Ganglia, Old System Monitoring\)](#)
- [Documentation \(Offline User's Workbook, Intro to CM2\)](#)
- [Task Manager Version 2](#) **new**

**News items:**

- 5 Jun 2008 - The CX [Agendas](#) with notes on the status of production activities
- [Older items](#)

**Getting Help**

- [Search](#) the BaBar HyperNews forums.
- [Search](#) the BaBar Web Site.
- Check the [Computing Information Resources](#) page.
- Check the [Offline User's Workbook](#).
- Check the [SRT User's Guide](#).
- Check the [Programming Page](#) with useful information for programmers
- The [Computing Information Resources](#) page gives pointers to info on BaBar computing, SCS, the Objectivity Database, problem checking and problem reporting.

**Pointers to the Major Systems:**

- [Online](#)
  - [DataFlow](#)
  - [Detector Control](#)
  - [OFF](#)

Main Page - Bbr\_wiki

https://bbr-wiki.slac.stanford.edu/bbr\_wiki/index.php/Main\_Page

Matt Bellis Docs Gmail Calendar BaBarWiki BurchatWiki Voice Inspire NIJ FF SLAC FF GIFFL Other Bookmarks

Bellis My talk My preferences My watchlist My contributions Log out

Page Discussion Read Edit View history Search

## Main Page

Old BaBar webpage (BFROOT) <#>

The image shows a screenshot of the old BaBar webpage. It features a blue background with a central logo for 'BABAR Collaboration Home Page' which includes a cartoon character holding a detector. To the left of the logo are links for Personnel, Glossary, Sitemap, Search, and Hypernews. To the right are links for Organization, Detector, Computing, Physics, and Documentation. Below the logo, a text box states: 'This home page is intended for our collaborators. It is hosted at SLAC. Public pages for SLAC, BaBar, and PEP-II are available below.'

This home page is intended for our collaborators. It is hosted at [SLAC](#). Public pages for SLAC, BaBar, and PEP-II are available below.

The BaBar detector was built at [SLAC](#) to study the millions of B mesons produced by the [PEP-II](#) storage ring.

The BaBar Collaboration consists of more than 400 physicists and engineers from ~75 institutions in more than 10 countries. We have already published more than 400 papers.

[BaBar Public Information & Visitor Pages](#)

[Contents](#) (show)

### Announcements

[\[edit\]](#)

|                  |   |
|------------------|---|
| <b>NEWS!</b>     | Research Associate position opened for Babar at SLAC. See one of the following links for details:<br><a href="#">BaBar RA</a> linked from the <a href="#">SLAC Career pages</a> or from <a href="#">SPIRES</a>  |
| <b>NEWS!</b>     | We have several <a href="#">senior</a> tasks that urgently need to be filled.   |
| <b>URGENT!</b>   | As mentioned in the <a href="#">SLAC Today Article</a> , please make sure that you have completed the online <a href="#">Cyber Security Basics Course</a> before the end of the year or your account will be disabled. At the bottom of the page at the above link there is also a link for UNIX users. |
| <b>Calendars</b> | <a href="#">Babar 2010 Calendar</a><br><a href="#">Babar 2011 Calendar</a>  |
| <b>ICHEP</b>     | <a href="#">ICHEP 2010 - July 2010 - 22nd to 28th - Paris, France</a>   |

Main Page  
Community portal  
Current events  
Recent changes  
Random page  
Help  
sitesupport

▼ BaBar Links  
Personnel  
HTML Search  
Glossary  
Hypernews  
Organization  
Detector  
Documentation

▼ Physics Links  
Physics page  
AWG's and task forces  
Wed. meetings  
Validation board  
Data quality  
Speakers bureau  
BAIS  
BAD  
BMO  
PubDB (public)  
PubDB (private)  
Detector operators  
Workbook  
Available data  
Analysis tutorial  
Cleaning AWG  
Review process  
Conference  
deadlines

Computing - Bbr\_wiki x

https://bbr-wiki.slac.stanford.edu/bbr\_wiki/index.php/Computing

Matt Bellis Docs Gmail Calendar BaBarWiki BurchatWiki Voice Inspire NIJ FF SLAC FF GIFFL Other Bookmarks

Bellis My talk My preferences My watchlist My contributions Log out

Page Discussion Read Edit View history Search

## Computing

**Contents** [hide]

- 1 BABAR Computing System Home Page
- 2 (last updated 8 October 2010)
- 3 Meetings
- 4 For details on current Computing Service Task Openings click here
- 5 Fast links:
- 6 Old web page
- 7 BaBar Software Administration
- 8 Simulation Production (SP)
- 9 Analysis (Offline) software
- 10 Resources
  - 11.1 CX Detector Paper
  - 11.2 Computing Resource Needs
  - 11.3 Migration issues and solutions

**BABAR Computing System Home Page** [edit]  
 (last updated 8 October 2010) [edit]

[Old static HTML web page](#)

[Who's Who in BaBar Computing](#) [i] **New Users: Please see [New Users](#)**

The BABAR Computing System includes the following elements:

- **Offline** (CPU, network, storage)
- **Software environment** in which the computing work is done (including code development/management, user concerns, distributed computing issues, etc.); and the
- **Collaboration code** `itst`(on-line, reconstruction, simulation, etc.).

**Meetings** [edit]

- CX meeting agendas
- OCIO(SCCS) meeting agendas

*For details on current Computing Service Task Openings click [here](#)*


[Main Page](#)  
[Community portal](#)  
[Current events](#)  
[Recent changes](#)  
[Random page](#)  
[Help](#)  
[sitesupport](#)  
 ▾ [BaBar Links](#)  
   [Personnel](#)  
   [HTML Search](#)  
   [Glossary](#)  
   [Hypernews](#)  
   [Organization](#)  
   [Detector](#)  
   [Documentation](#)  
 ▶ [Physics Links](#)  
 ▶ [Computing Links](#)  
 ▶ [Workbook Links](#)  
 ▶ [FAQs](#)  
 ▾ [Toolbox](#)  
   [What links here](#)  
   [Related changes](#)  
   [Upload file](#)  
   [Special pages](#)  
   [Printable version](#)  
   [Permanent link](#)

Tau-QED - Bbr\_wiki

https://bbr-wiki.slac.stanford.edu/bbr\_wiki/index.php/Tau-QED

Matt Bellis Docs Gmail Calendar BaBarWiki BurchatWiki Voice Inspire NIJ FF SLAC FF GIFF Other Bookmarks

Bellis My talk My preferences My watchlist My contributions Log out



Page Discussion Read Edit View history Search

## Tau-QED

Studies on tau pairs, mu pairs, searches on  $Y(nS)$  decays, other QED processes

conveners (email all): Yury Kolomensky, Alberto Lusiani, Randall Sobie

**Contents (hide)**

- 1 Activities
- 2 Organization
- 3 Useful information
- 4 Subpages

**Main Page**

- Community portal
- Current events
- Recent changes
- Random page
- Help
- site: support

**BaBar Links**

- Personnel
- HTML Search
- Glossary
- Hypernews
- Organization
- Detector
- Documentation

**Physics Links**

- Physics page
- AWG's and task forces
- Wed. meetings
- Validation board
- Data quality
- Speakers bureau
- BAIS
- BAD
- BMO
- PubDB (public)
- PubDB (private)
- Detector operations
- Workbook
- Available data
- Analysis tutorial
- Cleaning AWG
- Review process
- Conference deadlines

**Activities** [edit]

- Incoming conference deadlines: 2010
  - Tau 2010 - abstracts
  - ICHEP 2010 - submitted abstracts
- Core Analyses: [BAIS] - [PAC table]
- Analyses: [published] [conference] [active] [planned or free] [all] [retroactive]
- Recent / Important News
- Past Activities

**Organization** [edit]

- HyperNews forum
- when needed, we meet on Tuesday 8:30 AM PST (announces in the Tau HN and the BaBar BMO)

**Useful information** [edit]

- systematics
- tools
- references
- UVIC computing center (presentation) Email HN forum, getting started, local info
  - Tau/QED analyses must use the UVIC center rather than SLAC
- AWG disk space
- Tau Workshops: Tau08, Tau06, Tau04 (proceedings), Tau02

**Subpages** [edit]

|                            |                           |                    |
|----------------------------|---------------------------|--------------------|
| Tau-QED/AWG disk space     | Tau-QED/Past Activities   | Tau-QED/Tau 2010   |
| Tau-QED/Tau 2010/abstracts | Tau-QED/Useful BaBar News | Tau-QED/references |
| Tau-QED/systematics        |                           |                    |


Navigation icons: back, forward, search, etc.

Wiki Workbook - Bbr... x

https://bbr-wiki.slac.stanford.edu/bbr\_wiki/index.php/wiki\_workbook

Matt Bellis Docs Gmail Calendar BaBarWiki BurchatWiki Voice Inspire NIJ FF SLAC FF GFFL Other Bookmarks

Bellis My talk My preferences My watchlist My contributions Log out



Page Discussion Read Edit View history

## Wiki Workbook

**Welcome to the BaBar Wiki Workbook**

This Wiki Workbook is intended to introduce members of the BaBar collaboration to the world of BaBar offline analysis. The information is presented in the form of a workbook (a connected series of exercises). The wiki format of the workbook is intended to allow direct user feedback and improvement. The end goal is an always up to date and definitive source for beginners analysis questions.

Imagine the world of BaBar offline software as a workshop full of tools. This Wiki Workbook has the user pick up each tool in turn, do something simple and useful with that tool, and then put that tool down and move on to the next. Further documentation beyond the scope of the exercises is provided for each tool. Tools not utilized by the exercises are also documented. Many of the later exercises assume that you have completed the earlier ones, so it is important to complete the exercises in order. Some of the Wiki Workbook sections include these exercises, while others are mostly read-only documents. Once you have completed the Wiki Workbook, you will have mastered the fundamentals of working with BaBar software and running analysis code.

**Workbook Contents**

Here is a list of the contents of the BaBar Workbook, with a brief description of each section. The following sections should be completed in order.

- Account Setup**  
How to set up your SLAC Account.
- Quick Tour**  
A quick tutorial in which you perform all the basic steps of a BaBar analysis. This section is the core of the Workbook; most other pages refer back to it as the main example.
- Packages and Releases**  
Packages and releases: what they are, how they are named, and how they are organized in BaBar's file system. How to use SRT/CVS commands to check out releases and packages.
- Modules and the Framework**  
Introduction to modules. How modules are put together to make an analysis job.
- Event Information**  
How to access the event information, and what information is available. Includes tables of the main particle candidate lists and event variables in the Event Store database.
- Tcl: Run-time job control**  
How to interact with the Framework and talk to modules.
- Editing Module Code**  
How to write code in modules. Using the main C++ objects: HepHistogram, HepTuple, BtaCandidate, and HepAList.
- Compile and Link**  
All about gmake, BaBar's compile-and-link utility.
- Run the Job**  
How to run BaBar executables. Program flow. The workdir package.
- Debugging**  
Using the debuggers to track run-time errors.
- Run-time Parameters**  
How to make module parameters into run-time parameters.

**Main Page**  
Community portal  
Current events  
Recent changes  
Random page  
Help  
sitesupport

**BaBar Links**  
Personnel  
HTML Search  
Glossary  
Hypernews  
Organization  
Detector  
Documentation

**Physics Links**  
Physics page  
AWG's and task forces  
Wed. meetings  
Validation board  
Data quality  
Speakers bureau  
BAIS  
BAD  
BMO  
PubDB (public)  
PubDB (private)  
Detector operations  
Workbook  
Available data  
Analysis tutorial  
Cleaning AWG  
Review process  
Conference  
deadlines

Navigation icons: back, forward, search, etc.



The screenshot shows a web browser window with the URL [https://bbr-wiki.slac.stanford.edu/bbr\\_wiki/index.php/LTDA\\_Weekly\\_Meetings](https://bbr-wiki.slac.stanford.edu/bbr_wiki/index.php/LTDA_Weekly_Meetings). The page title is "LTDA Weekly Meetings". On the left is a navigation sidebar with categories like "Main Page", "Community portal", "Recent changes", "Help", "BaBar Links", "Physics Links", "Computing Links", "Workbook Links", "FAQs", and "Toolbox". The main content area features a "Discussion" tab, a search box, and a list of 31 weekly meetings from August 2009 to September 2010. At the bottom, a note states: "This page was last modified on 30 September 2010, at 19:01."

LTDA Weekly Meetings

Back to LTDA main page

1. Aug. 6, 2009 (Thurs.)
2. Aug. 13, 2009 (Thurs.)
3. Aug. 20, 2009 (Thurs.)
4. Aug. 27, 2009 (Thurs.)
5. Sep. 10, 2009 (Thurs.)
6. Sep. 17, 2009 (Thurs.)
7. Sep. 24, 2009 (Thurs.)
8. Oct. 1, 2009 (Thurs.)
9. Oct. 8, 2009 (Thurs.)
10. Oct. 15, 2009 (Thurs.)
11. Oct. 22, 2009 (Thurs.)
12. Oct. 29, 2009 (Thurs.)
13. Nov. 12, 2009 (Thurs.)
14. Jan. 7, 2010 (Thurs.)
15. Jan. 14, 2010 (Thurs.)
16. Jan. 28, 2010 (Thurs.)
17. Feb. 4, 2010 (Thurs.)
18. Feb. 18, 2010 (Thurs.)
19. Mar. 4, 2010 (Thurs.)
20. Mar. 11, 2010 (Thurs.)
21. Mar. 18, 2010 (Thurs.)
22. Apr. 8, 2010 (Thurs.)
23. Apr. 15, 2010 (Thurs.)
24. May. 13, 2010 (Thurs.)
25. June 10, 2010 (Thurs.)
26. July 1, 2010 (Thurs.)
27. July 29, 2010 (Thurs.)
28. Aug. 5, 2010 (Thurs.)
29. Aug. 26, 2010 (Thurs.)
30. Sept. 3, 2010 (Thurs.)
31. Sept. 30, 2010 (Thurs.)

This page was last modified on 30 September 2010, at 19:01.

LTDA weekly meeting... x

https://bbr-wiki.slac.stanford.edu/bbr\_wiki/index.php/LTDA\_weekly\_meeting\_103009

Matt Bellis Docs Gmail Calendar BaBarWiki BurchatWiki Voice Inspire NIJ FF SLAC FF GIFFL Other Bookmarks

Bellis My talk My preferences My watchlist My contributions Log out

Page Discussion Read Edit View history Search

## LTDA weekly meeting 103009

Back to LTDA main page

Back to LTDA weekly meetings

**Contents (hide)**

- 1 Agenda (September 30th, 2010)
- 2 Current Items
- 3 Action Items
- 4 Archival System Specifications
- 5 Migration
- 6 Simplification
- 7 Visualisation
- 7.1 Options
- 8 Outreach Issues
- 9 Specific preparation and confirmation tasks
- 10 The LTDA Paper: BAD 2237

**Agenda (September 30th, 2010)** [edit]

Long Term Data Access

Long Term Data Access group  
at 1:00pm  
in Cedar.

The teleconference details are:  
Directions below for new "READYTALK" conference service:  
U.S. & Canada PARTICIPANTS

1. Dial Toll-Free Number: **866-749-1260** (U.S. & Canada)
2. Enter 7-digit access code: 8578339#  
International PARTICIPANTS:

\*\*To locate International Toll-Free Numbers go to  
<http://www.readytalk.com/intl/>  
Enter 7-digit ACCESS CODE: 8578339#

1. Dial toll free number from web link
2. Enter Passcode: Enter 7-digit ACCESS CODE: 6904982 followed by the #

\*\*\*\*\*All participants will be placed on hold until the Chairperson starts the meeting.

bbr-wiki.slac.stanford.edu/bbr\_wiki/index.php/Main\_Page

Cloud Status - Bbr\_wiki x

https://bbr-wiki.slac.stanford.edu/bbr\_wiki/index.php/Cloud\_Status

Matt Bellis Docs Gmail Calendar BaBarWiki BurchatWiki Voice Inspire NIJ FF SLAC FF GIFF Other Bookmarks

Bellis My talk My preferences My watchlist My contributions Log out

Page Discussion Read Edit View history Search

## Cloud Status

Contents [show]

### NRC Cloud Status [edit]

### The Setup [edit]

#### Physical Machines [edit]

- 4 physical machines with 8 cores each:
  - cumulus (Dell R410, 24 GB, 2.66 Ghz Nehalem)
  - stratus (Dell R410, 24 GB, 2.66 Ghz Nehalem)
  - cirrus (Dell R710, 24 GB, 2.4 Ghz Nehalem)
  - pileus (Dell 1950, 32 GB, 2.66 Ghz)
- Each running openSUSE 11.2 xen.
- Installed nimbus cloud computing software on each (<http://www.nimbusproject.org>)

#### Virtual Machines [edit]

- 2 Different BaBar Simulation images created
  - Created a "head node" VM image that contains all BaBar software, and exports via NFS.
    - Head node is also pbs server.
  - Created "worker node" Babar images that are much smaller (2GB), and mount the from the VM headnode via NFS.
    - worker nodes are pbs cluster nodes.

#### Specify Configuration of cloud in an xml file [edit]

```

<?xml version="1.0" encoding="UTF-8"?>
<cluster xmlns="http://www.globus.org/2008/06/workspace/metadata/logistics">
  <workspace>
    <name>head-node</name>
    <image>libsvm</image>
    <quantity>1</quantity>
    <nic_virt_login>true</private/nic>
    <os>
      <provides>
        <identity />
        <rolantorg/amester</role>
        <rolantorg/server</role>
      </provides>
      <requires>
        <identity />
        <role name="torqueslave" hostname="true" pubkey="true" />
        <role name="infoclient" />
      </requires>
    </os>
  </workspace>
</cluster>

```

Main Page  
Community portal  
Current events  
Recent changes  
Random page  
Help  
sitesupport

BaBar Links  
Personnel  
HTML Search  
Glossary  
Hypernews  
Organization  
Detector  
Documentation

Physics Links  
Physics page  
AWG's and task forces  
Wed. meetings  
Validation board  
Data quality  
Speakers bureau  
BAIS  
BAD  
BMO  
PubDB (public)  
PubDB (private)  
Detector operations  
Workbook  
Available data  
Analysis tutorial  
Cleaning AWG  
Review process  
Conference

Cloud Status - Bbr\_wiki x

https://bbr-wiki.slac.stanford.edu/bbr\_wiki/index.php/Cloud\_Status

Matt Bellis Docs Gmail Calendar BaBarWiki BurchatWiki Voice Inspire NIJ FF SLAC FF GIFFL Other Bookmarks

```

* stratus: [Dell R410, 24 GB, 2.66 GHz Nehalem] 0 worker node vms
* cirrus: [Dell R210, 24 GB, 2.4 GHz Nehalem] 2 worker node vms
* pilatus: [Dell 1350, 32 GB, 2.66 GHz] 0 worker node vms

```

### Data Rates

Network plot of UVic's sshfs host

Network (bytes) for tenrec.rsf.uvic.ca eth0: 20100203\_10:00 to 20100203\_16:00

Graph created the Feb 4 08:37:19 2010

### What's next

- I'd like to run the simulation validation scripts on the cloud.
  - Can someone add vm131.cloud.nrc.ca to the proxy database at SLAC?
- Produce a small amount of SP11, for testing's sake.

This page was last modified on 4 February 2010, at 20:54.  
 This page has been accessed 15 times.  
[Privacy policy](#) [About Bbr\\_wiki](#) [Disclaimers](#)

Powered by MediaWiki

Glossary Q-Z - Bbr\_wiki x

https://bbr-wiki.slac.stanford.edu/bbr\_wiki/index.php/Glossary\_Q-Z

Matt Bellis Docs Gmail Calendar BaBarWiki BurchatWiki Voice Inspire NIJ FF SLAC FF GIFFL Other Bookmarks

Bellis My talk My preferences My watchlist My contributions Log out

Page Discussion Read Edit View history Search

## Glossary Q-Z

Back to Glossary

**Contents** [hide]

- 1 Quark
- 2 P2
- 3 r2all (P2aB)
- 4 radiation length
- 5 Flaw
- 6 raw data (PAW)
- 7 Read Out Controller (ROC)
- 8 Read Out Module (ROM)
- 9 Read-Out Controller (ROC)
- 10 refractometer
- 11 Regional Centers
- 12 release
- 13 reprocess
- 14 Resistive Plate Chamber (RPC)
- 15 resolution
- 16 Resonant
- 17 Pogue Wave
- 18 Poling calibration
- 19 ROOT Definition Language (PDL)
- 20 ROPT
- 21 run
- 22 run contacts
- 23 Run Coordinator (RC)
- 24 scanner
- 25 schema
- 26 Scintillator
- 27 Secure Shell (SSH)
- 28 Self-Cross-Feed (SCF)
- 29 sense wire
- 30 sequence
- 31 setboon
- 32 Sestani
- 33 Silicon Vertex Detector (SVT)
- 34 site
- 35 SimApp
- 36 Simulation Production (SP)

**Main Page**

- Community portal
- Current events
- Recent changes
- Random page
- Help
- sitesupport

**BaBar Links**

- Personal
- HTML Search
- Glossary
- Hypernews
- Organization
- Detector
- Documentation

**Physics Links**

- Physics page
- AWG's and task forces
- Wed. meetings
- Validation board
- Data quality
- Speakers bureau
- BAIS
- BAD
- BMO
- PubDB (public)
- PubDB (private)
- Detector operations
- Workbook
- Available data
- Analysis tutorial
- Cleaning AWG
- Review process
- Conference deadlines

Glossary Q-Z - Bbr\_wiki x

https://bbr-wiki.slac.stanford.edu/bbr\_wiki/index.php/Glossary\_Q-Z#Super\_Fox-Wolfram\_moment\_28SFWM.29

Matt Bellis Docs Gmail Calendar BaBarWiki BurchatWiki Voice Inspire NUJ FF SLAC FF GIFFL Other Bookmarks

## Super Fox-Wolfram moment (SFWM) [edit]

The super Fox-Wolfram moments are a means of continuum suppression. The underlying idea of continuum suppression techniques is the difference in the event shapes of continuum and BBbar events. Since BBbar events are resonant only little energy is released and these events tend to be spherical. In contrast continuum events exhibit a large energy release and the q and qbar jets tend to emerge collimated back to back. A number of variables have been developed to quantify these differences, one of them are the Fox-Wolfram moments which are already defined elsewhere in this glossary.

The i-th Fox-Wolfram moment is defined as

$$H_i = \sum_{ij} |p_i||p_j| P_i(\cos(\theta_{ij}))$$

where  $p_i$  is the i-th particle's momentum, and  $P_i$  is the i-th Legendre polynomial. The argument of  $P_i$  is the cosine of the angle  $\theta_{ij}$  between particle i and particle j.

The super Fox-Wolfram moments are extensions of the Fox-Wolfram moments, the terms in the summation of  $H_i$  are separated into 3 groups:

1. Terms involving particles in the B candidate.
2. Terms with some particles in the B candidate and others from the rest of the event
3. Terms involving only particles from the rest of the event.

A [Fisher discriminant](#) is then constructed from these terms. This [Fisher discriminant](#) is the so called super Fox-Wolfram moment.

---

## Swing shift [edit]

The shift which starts at 4pm and ends at midnight.

---

## tag (none) [edit]

A tag is used by BaBar to identify a version of BaBar package. For example, tag V01-02-03 for SoftRelTools signifies major version 01, medium version 02, and minor version 03 of package SoftRelTools.

---

## task [edit]

This refers to contributions by collaborators to keep the BABAR detector running effectively. As defined in the BABAR Collaboration Services Policy: "It is expected that all institutions in the collaboration contribute to the ongoing operation of the experiment. These contributions include detector systems and core software operations and maintenance, coordination and management tasks, physics tools development and infrastructure support, Monte Carlo production, and a host of other jobs both in the operation of the detector and computing

Reference Link (<http://www.slac.stanford.edu/BFROOT/www/Organization/Administration/CommonTasks17.pdf>)

---

## Tcl scripts [edit]

Tcl scripts are used extensively to set up sequences, paths, and to perform general framework setup such as input files. Many types of sequences are worthless if the order of the modules is wrong or if some modules of the sequence are not enabled. Tcl scripts maintain this coherence. There is often a script file for each sequence.

Reference Link (<http://www.slac.stanford.edu/BFROOT/www/doc/workbook/framework1/framework1.html#tcl>)

---

## TDR [edit]

Technical Design Report. Final document describing the detector design at start of construction.

Reference Link (<http://www.slac.stanford.edu/BFROOT/www/doc/TDR/>)

Special pages - Bbr\_wiki... x

https://bbr-wiki.slac.stanford.edu/bbr\_wiki/index.php/Special:SpecialPages

Matt Bellis Docs Gmail Calendar BaBarWiki BurchatWiki Voice Inspire NIJ FF SLAC FF GIFF Other Bookmarks

Bellis My talk My preferences My watchlist My contributions Log out

Special page

## Special pages

### Maintenance reports

- Broken redirects
- Dead-end pages
- Double redirects
- Long pages
- Oldest pages
- Orphaned pages
- Pages with the fewest revisions
- Pages without language links
- Protected pages
- Protected titles
- Short pages
- Uncategorized categories
- Uncategorized files
- Uncategorized pages
- Uncategorized templates
- Unused categories
- Unused files
- Unused templates
- Unwatched pages
- Wanted categories
- Wanted files
- Wanted pages
- Wanted templates

### Lists of pages

- All pages
- All pages with prefix
- Categories
- Disambiguation pages
- List of redirects

### Login / sign up

- Log in / create account

### Users and rights

- Active users list
- Block user**
- Blocked IP addresses and usernames
- Change password
- Deleted user contributions**
- Merge and delete users**
- Preferences
- User contributions
- User group rights
- User list
- User rights management**

### Recent changes and logs

- Gallery of new files
- Logs
- My watchlist
- New pages
- Recent changes
- Related changes
- Valid change tags

### Media reports and uploads



[Main Page](#)  
[Community portal](#)  
[Current events](#)  
[Recent changes](#)  
[Random page](#)  
[Help](#)  
[sitesupport](#)  
 ▾ [BaBar Links](#)  
   [Personnel](#)  
   [HTML Search](#)  
   [Glossary](#)  
   [Hypernews](#)  
   [Organization](#)  
   [Detector](#)  
   [Documentation](#)  
 ▾ [Physics Links](#)  
   [Physics page](#)  
   [AWG's and task forces](#)  
   [Wed. meetings](#)  
   [Validation board](#)  
   [Data quality](#)  
   [Speakers bureau](#)  
   [BAIS](#)  
   [BAD](#)  
   [BMO](#)  
   [PubDb \(public\)](#)  
   [PubDb \(private\)](#)  
   [Detector operations](#)  
   [Workbook](#)  
   [Available data](#)  
   [Analysis tutorial](#)  
   [Cleaning AWG](#)  
   [Review process](#)  
   [Conference deadlines](#)

- Small contributions by many can be very powerful.
- **The Wiki does not solve the challenge of providing good documentation!**  
*It is merely a tool.*
- It will only be as good as we make it.
- Documentation Working Group in place.



- Small contributions by many can be very powerful.
- **The Wiki does not solve the challenge of providing good documentation!**  
*It is merely a tool.*
- It will only be as good as we make it.
- Documentation Working Group in place.
- Migration to the Wiki is proceeding.
- **Can we embed the Wiki attitude in the collaboration...or is it too late?**



- Google Docs
  - Word-type documents, spreadsheets, presentations.  
<http://www.google.com/google-d-s/documents/>

- Google Docs
  - Word-type documents, spreadsheets, presentations.  
<http://www.google.com/google-d-s/documents/>
- Google Code/Project Hosting
  - Repository for open source projects.
  - Have used this with great success with students and other projects (PyDecay, Particle Physics Wind Chime, CUDA tutorials)  
<http://code.google.com/hosting/>

- Google Docs
  - Word-type documents, spreadsheets, presentations.  
<http://www.google.com/google-d-s/documents/>
- Google Code/Project Hosting
  - Repository for open source projects.
  - Have used this with great success with students and other projects (PyDecay, Particle Physics Wind Chime, CUDA tutorials)  
<http://code.google.com/hosting/>
- Google Charts/Visualizations
  - Online data visualization/plots/charts  
<http://code.google.com/apis/chart/>
  - Motion Chart
  - Code is from Gapminder folks.  
<http://www.gapminder.org/>  
[http://www.ted.com/talks/hans\\_rosling\\_reveals\\_new\\_insights\\_on\\_poverty.html](http://www.ted.com/talks/hans_rosling_reveals_new_insights_on_poverty.html)

# PDG information

[http://www.stanford.edu/group/burchat/cgi-bin/bellis\\_mediawiki/index.php/PGD\\_visualizations](http://www.stanford.edu/group/burchat/cgi-bin/bellis_mediawiki/index.php/PGD_visualizations)



# Summary

- Lots of good collaborative tools out there.
- Many of them open-source.
- Can we use them securely and effectively?
- Good *collaborative, computing tools* require thinking about *the end users*
  - **Wetware hacking**
  - **Social engineering**
  - **Meatspace interaction**

- Lots of good collaborative tools out there.
- Many of them open-source.
- Can we use them securely and effectively?
- Good *collaborative, computing tools* require thinking about *the end users*
  - **Wetware hacking**
  - **Social engineering**
  - **Meatspace interaction**

**Thanks for your time!**