

Introduction to UNIX at SLAC

SLAC 7 Mar 1996

Following are some documents to help you get started using UNIX at SLAC. The first section treats at SLAC; the second, pointers to other information at SLAC; and the third, sources of useful information elsewhere.

Files at SLAC

The name on the left is the file name at SLAC, which is in the `/usr/local/doc` subdirectory* indicated by the section title, e.g., `intro`. This page will change as we continue reorganizing `/usr/local/doc` space. Some file names will change.

intro

first-aid

Pointers to where to get started finding help on diverse subjects from medical or security through UNIX computing problems. This file is used by SLAC's `aid` command, which displays pointers for keywords you specify. The data base is focused primarily on UNIX. See `man aid` for more specifics.

books-unix

An annotated bibliography on various aspects of UNIX, networking and communications, the Internet, programming, TeX, the X Window System, *etc.*

unix.ps

UNIX at SLAC: Getting Started, which introduces you to basic commands, file manipulation, and environment tailoring. See also Tom Pavel's personal tips on getting the most out of UNIX.

policies

node-names

Conventions and rules for node names.

software-acquisition

Strategy for acquiring software with regard to licensing, quantity discounts, support, etc. Roles of various parties (purchasing, SCS, users) are outlined.

public-machines

List of public machines, including servers, and their appropriate uses.

NAG-f90

Restrictions on the use of the NAG's FORTRAN 90 compiler for NeXTs.

root-privs

Summary of xCG discussions on security and root privileges.

how-to-use

WDSF-restore.ps

Ways for UNIX (including NeXT) users to use WDSF to restore backed up files.

admin/how-to-use

Maccount.ps

"How to Use UNIX M (Maintenance) Accounts" by Ilse Vinson for those who are installing public applications on UNIX and those who want to find out about aspects of the process.

unixws-setup.ps

"How to Manage a Workstation at SLAC" by Tom Pavel, targeted for those who don't run "tailor" as the SCS-managed workstations do. Has useful conceptual information, even for those who do.

Other Information at SLAC

You may also find the following pages useful:

- Introduction to AFS
- GNU list (including `emacs` and `gcc`)
- Introduction to Computing SLACwide
- Host Resource Utilization Statistics

The the following UNIX-related report:

- unix-hosts*

And the following UNIX-related newsgroups:

- slac.users.unix
- slac.users.aix

Press here to go to the SLAC Home Page.

Information Sources Elsewhere

Here're some other sources of useful information. The name on the left is a name the information is known by.

Netserver

An experimental Stanford University FTP server called Netserver, which is an archive site for UNIX system administration support and software distribution.

X Sources Archive

FTP archive for X-Window consortium, including sources, Public Review documents, X Test Suite, and user-contributed software. (Replaces export.lcs.mit.edu.)

* Access to all files in the `/usr/local/doc` subdirectory is restricted to SLAC users, along with other file(s) explicitly marked on this page.



Winters; Boenheim

SCREENS. ITS

1996/admin/elastic.html

Serial Number 00-072
Series 2 6/15/96
Box 5 Folder 5

Index of /archive/1996/admin

<u>Name</u>	<u>Last modified</u>	<u>Size</u>	<u>Description</u>
 Parent Directory	30-Mar-1998 17:37	-	
 slac.html	28-Oct-1994 07:53	2k	

Apache/1.3.12 Server at www.slac.stanford.edu Port 80

Cloning the SLAC Home Page slac.html
 Les Cottrell, 27-Oct-1994

The SLAC home page is currently saved in master form on SLACVM in:

```
/nfs/slacvm/ascii/www.192/slac.html
```

It is copied nightly to Unix by a cron job that runs on castor.
 The current contents of the crontab file can be viewed by executing the command

```
crontab -l.
```

The crontab file itself can be found by rlogin to www as Mwww (
 rlogin www -l Mwww) and viewing (e.g. via more or emacs) the file

```
/usr/lib/www/cronlist.castor
```

If this file is changed then you will need to execute the command

```
crontab /usr/lib/www/cronlist.castor
```

afterwards for the change to take effect.

This cron job executes the REXX exec:

```
/u/sf/cottrell/bin/clone "infile=/nfs/slacvm/ascii/www.192/slac.html&outfile=/usr/li
```

The clone exec also converts the relative html links to absolute ones.
 These conversions are made by calling the REXX exec /u/sf/cottrell/bin/vm2unix.
 The clone exec also makes many checks on the file as it is copied etc. to
 catch NFS, disk space, conversion exec, missing files etc. errors.

On VM the disconnected virtual machine VMSTAT runs nightly before
 the castor cron job in order to refresh the NFS link to www.192.

Help for the Unix execs can be obtained by executing the commands:

```
/u/sf/cottrell/bin/clone help  



























/u/sf/cottrell/bin/vm2unix help
```

Any output from the clone job (in particular error messages)
 will be sent as Email to the maintainers of
 the Mwww account. The userids of the maintainers can be found by looking
 in the /u/oh/Mwww/.aliases/maint-www file. This list may be changed from
 the Mwww account (i.e. rlogin to www as user Mwww).

1.
SLAC FILMS 1996/photopic/

SLAC ARCHIVES COLL. 00-01
SERIES 2 SUBSERIES 2
BOX 8 FOLDER 6

Index of /archive/1996/hottopic

Name	Last modified	Size	Description
 Parent Directory	30-Mar-1998 17:37	-	
 9603a.html	20-Mar-1996 19:04	3k	
 B-Factory-Review-Aug..>	22-Aug-1994 09:57	1k	
 Drell-full_report.html	16-Aug-1994 20:07	2k	
 LOG	18-Mar-1996 19:00	3k	
 TODTW.html	26-Apr-1995 15:01	4k	
 computerfair-1994.gif	05-Aug-1994 16:11	62k	
 computerfair-1995.gif	10-Jul-1995 19:19	13k	
 feature.html	10-Jun-1996 12:23	1k	
 galvin-tf-doe.html	15-Jun-1995 13:04	1k	
 hottop.html	30-Jul-1996 15:07	3k	
 hottop/	08-May-1996 10:44	-	
 hottopic-over.html	10-Jun-1996 11:46	1k	
 hottopic-ptr.html	18-Mar-1996 21:30	5k	
 hottopic.html	22-Dec-1995 19:01	8k	
 img/	18-Mar-1996 19:00	-	
 log.html	07-Dec-1994 01:55	2k	
 mperl95/	16-Oct-1995 09:29	-	
 nap-online-grad-inde..>	15-Jun-1995 11:51	1k	
 nat-elec-open-meetin..>	15-May-1995 07:22	1k	
 prev-hottopics.html	19-Mar-1996 15:12	5k	
 readme	18-Mar-1996 19:00	1k	
 ssi-1994.html	15-Jun-1995 11:30	4k	
 ssi-1995.html	07-Jul-1995 11:49	3k	
 ssi.html	30-Jun-1995 11:44	1k	
 town-meeting.html	05-May-1995 21:45	6k	

Apache/1.3.12 Server at www.slac.stanford.edu Port 80

Hot Topics Log File

This file is the log of changes made to the SLAC Hot Topic page(s) since its inception in 1994. Early comments (at end of this file) were made earliest-to-latest. With the change to the new structure (March 1996), log comments will be added with the most recent at top.

=====

Log Entries

18 March 96 (Henniss). Changed format of hottopics page for new style per PA Moore (new owner). Revised structure is designed so that home pages contain links to current Hot Topic Page which then contains a link to previous hot topics page. Eliminated some explanatory verbiage, moved growing list of comments formerly appended to hottopic.html to this file.

Earlier comments (prior to March 1996 restructuring)

```
<!-- 3 Aug 94 by Winters Created for pushdown stack of SLAC Hot Topics -->
<!-- 8 Aug 94 by Winters Fix .ps to .gif for Computer Fair (inadvertently omitted-
<!-- 17 Aug 94 by Winters Add B-Factory Review item re PAK and JMD -->
<!-- 22 Aug 94 by Winters Make SSI old Hot Topic (it's over); break into explicit c
<!-- 6 Sep 94 by Winters Make B-Factory Review old Hot Topic re PAK (w ~2wks lifet
<!-- now first "no Hot Topic" state since it started -->
<!-- 2 Feb 95 by Winters Make Galvin Report the Hot Topic; -->
<!-- add HTML, HEAD, and BODY tags; change from binlist to /owner; del "un
<!-- 24 Apr 95 by Winters Migrate Galvin Report to Old; make TODTW Day current hot
<!-- upd URL, esp move SSI links to ../hot-topic dir; remove dl compact
<!-- 29 Apr 95 by Winters Move TODTW Day from current into previous SLAC Hot Topic,
<!-- 3 May 95 by Winters Make COSEPUP Reshaping Grad Ed report current HT re GDC -
<!-- 5 May 95 by Winters Add second SLAC Hot Topic of Nat Electronic Open Mtg re R
<!-- 15 May 95 by Winters Move National Electronic Open Meeting to old hot topic --
<!-- 15 Jun 95 by Winters Move COSEPUP Reshaping Grad Ed to old hot topic, now none
<!-- upd links from /winters/pub/www/hot-topic to new AFS URL /slac/hottop
<!-- 29 Jun 95 by Winters Add year titling info re TonyJ's colleague's confusion on
<!-- rename ssi.html to 1994ssi.html in URL -->
<!-- 3 Jul 95 by Winters Add SSI '95 as current HT; tune intro texts; -->
<!-- move HOTTOPIC HTML from SLACVM to AFS ../slac/hottopic/hottopic.html
<!-- 10 Jul 95 by Winters Add SSI Computer Fair as secondary Hot Topic re Lilian, e
<!-- 12 Jul 95 by Winters Made Computer Fair past tense and add SSI dates -->
<!-- 11 Oct 95 by Winters Add item for Marty Perl receiving the Nobel Prize -->
<!-- in Physics with Frederick Reines -->
<!-- 18 Oct 95 by Winters Add cross-link to newsgroup slac.announce.important -->
<!-- re SandraC and the pager inventory pre cutover -->
<!-- 13 Dec 95 by Winters Upd for prototype format -->
<!-- 14 Dec 95 by Winters Install in production -->
<!-- 22 Dec 95 by Winters Join end anchors, synch button texts re ASJ -->
```

SLAC Summer Institute 1994 Computer Fair & Scientific Visualization Festival

Wednesday, August 10
2 p.m. – 4 p.m.

Computer Fair
in the Auditorium Lobby and Breezeway

Come see the latest in advanced hardware and software applications. Computer vendors include Sun Microsystems Inc., IBM Corp., Silicon Graphics, Hewlett-Packard Corp., Apple Computer, Visual Numerics, Advanced Visual Systems, and Adobe Systems. Demonstrations of Interactive Data Language (IDL), World Wide Web, and NASA's Sky Survey will take place in the lobby.

Scientific Visualization Festival in the Auditorium

Join us for a program featuring cutting edge scientific visualizations and simulation produced at supercomputing and research centers. Dr. Joel Primack (UC Santa Cruz) opens the show with a video presentation of his cosmological visualization produced at the IBM Almaden Research Center. This video program will run twice so that attendees will be able to see the show and visit the Computer Fair.

2:30 p.m. – 2:45 p.m. Dr. Joel Primack
2:45 p.m. – 3:15 p.m.



SLAC Hot Topics

SLAC 30 Jul 1996

This is an interim design for the next iteration of SLAC Hot Topics, so it's more than "under construction." Here are the current SLAC Hot Topics with the dates they were added:

- [Office of Technology Transfer is accepting proposals til 26 Aug 1996 \(30 Jul 96\)](#)
- [The SLAC Summer Institute 1996: The Strong Interaction, from Hadrons to Partons \(17 May 96\)](#)
- [VM Migration \(4 Apr 96\)](#)

Previous SLAC Hot Topics:

- [BITNET Migration \(4 Apr 96\)](#)
- [Personnel Performance Evaluation Forms \(PPAR Forms\) \(4 Apr 96\)](#)
- [SLAC 2000: Forum for New Ideas for SLAC beyond 2000 \(6 Apr 96, 7 May 96\)\)](#)
- [How SLAC Was Built: Engineer-Architect Aspects \(26 Apr 96\)](#)
- [Quality Science Education Seminar \(19 Apr 96\)](#)
- [Networking Problems \(18 Apr 96\)](#)
- [More "Previous SLAC Hot Topics"](#)

You may also find the [SLAC Features](#) interesting.

[*Winters*](#)

README file: Comments on March 1996 changes to the SLAC Hot Topics page(s) by PA Moore and K Henniss.

Changes include the following:

1. New graphic banner for main hot topic page.
2. Changed structure from main hot topics page containing pointer to current hot topic page to main(=current) hot topic page with pointer to previous hot topics page.
3. Revised "SLAC Hot Topics: Then and Now" to be "Previous SLAC Hot Topics" page only. Removed some text, pointer to current hot topic page. Moved comments at the end of the file to a separate file (LOG).
4. Moved current image files into new subdirectory img. (Would like to eventually migrate all image files to this subdirectory.)
5. Changed naming scheme so individual hot topics pages are named

XXYYn(-slaonly).html

where XX is year, YY is month, and n is an alphabetic increment, for months containing more than one hot topic (default is "a"). The -slaonly string will be incorporated into the file name as warranted. This naming scheme allows files to be sorted automatically by date.

Would be nice to eventually rename all the old files, change all the links accordingly. Failing this, at least move them all into an old-hottopics directory.

New "Previous SLAC Hot Topics" page is now prev-hottopics.html.

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This file last modified 18 March 1996.

Information from the San Diego Supercomputer Center:

National Electronic Open Meeting

For Immediate Release

May 1, 1995

SDSC and NCSA provide mirror servers to promote public participation in Nation's first electronic "town meeting."

For more information, contact:

Ann Redelfs
SDSC
(619) 534-5113
(619) 534-5077 (FAX)
redelfs@sdsc.edu

John Melchi
NCSA
(217) 244-3049
(217) 244-8195 (FAX)
jmelchi@ncsa.uiuc.edu

The San Diego Supercomputer Center (SDSC) and the National Center for Supercomputing Applications (NCSA) today join the federal government in the nation's first experiment using computing and communications technologies to engage citizens in participatory democracy.

SDSC and NCSA have established mirror servers to support access to this meeting, which is an open forum on the subject of "People and their Governments in the Information Age." The meeting, which began at 9:00 a.m. EST today continues through midnight, Sunday, May 14.

The meeting will seek to garner public opinion on the use of information technology by federal, state, tribal, and local governments in creating an electronic government that works better and costs less. The Vice President of the United States, the Secretary of Commerce, and others are expected to make electronic "appearances" during the course of the meeting.

According to Secretary of Commerce, Ron Brown, "Through this national open meeting, we hope to spur public discussion and vigorous debate on how government can improve delivery of services and benefits, and availability of information; and increase citizen participation in our democratic process using information technologies."

This meeting is being sponsored by the Office of Management and Budget (OMB), the Department of Commerce (the National Telecommunications and Information Administration and the National Technical Information Service's FedWorld), and the Vice President's National Performance Review. These sponsoring agencies are participants in the Information Infrastructure Task Force (IITF), an interagency group, chaired by Secretary Brown, that was formed to articulate and implement the Administration's vision for the National Information Infrastructure. Additional assistance is being provided by the U.S. Government Printing Office (GPO), the Library of Congress, the U.S. Census office (part of DOC), and the U.S. Geological Survey. In addition, significant time and equipment have been donated to support the meeting by America Online, CompuServe, Prodigy, MCI, Sprint, Kinko's, and IBM Global Network. Sun Microsystems donated Sun SPARCstation 10 platforms to serve as the mirror servers at SDSC and NCSA.

During the meeting, five discussion groups will be accessible:

SERVICES--from delivery of emergency help and health care to issuing business licenses.

BENEFITS--from delivery of Social Security payments and food stamps to processing small business grants.

INFORMATION--from declassifying secrets to making U.S. Census data more easily available.

PARTICIPATORY DEMOCRACY--from making access to government easier to ensuring that everyone has the opportunity to participate in government policymaking.

TECHNOLOGY--ensuring compatible electronic systems at the various government levels and system security and reliability.

Each discussion group will be hosted by one or more experts who will provide an introductory statement to initiate the discussion and describe who will take part in the discussion. Attendees will participate in the conference by replying to the hosts' introductory statements, posting statements or comments, and by replying to the statements and comments of other attendees.

People with access to computers can participate in the meeting in any of these ways:

* Point your World Wide Web browser to:

- <http://meeting.sdsc.edu> -- For west coast users
- <http://meeting.ncsa.uiuc.edu> -- For users in the central part of the country
- <http://meeting.fedworld.gov> -- For east coast users

* Send a blank e-mail message to info@meeting.fedworld.gov.

* Access an Internet provider or online service such as America Online and Prodigy.

* Dial toll-free (800)779-3272 using a computer with a modem.

People who do not have computers, modems, or other access to the Internet can access this meeting through the nearest public access site. Public access sites are hundreds of institutions nationwide that have offered their computer facilities free-of-charge to the general public on a full- or part-time basis throughout the meeting. A list of these access sites can be obtained by contacting the GPO at (202)512-1530.

Update: **Public Access Site Registration is now closed.**

OMB is conducting a Notice of Inquiry (NOI) to solicit public opinion on the use of information technology to disseminate government information. This meeting will provide an alternative method of filing replies to the NOI. All comments submitted as part of the meeting will be included as official responses to the NOI.





The San Diego Supercomputer Center, a national laboratory for computational science and engineering, is sponsored by the National Science Foundation, administered by General Atomics, and affiliated with the University of California at San Diego. For additional information, refer to SDSC's World Wide Web

server at <http://www.sdsc.edu/> or contact Ann Redelfs, SDSC, (619)534-5032, redelfs@sdsc.edu.

NCSA, a unit of the University of Illinois at Urbana-Champaign, is dedicated to advancing leading-edge technologies in information and high-performance computing and communications in academia and industry. The center receives major funding to support its research from the National Science Foundation, the Advanced Research Projects Agency, NASA, corporate partners, the State of Illinois, and the University of Illinois.

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Index of /archive/1996/hottopic/hottop

<u>Name</u>	<u>Last modified</u>	<u>Size</u>	<u>Description</u>
 Parent Directory	03-Jun-1996 17:00	-	
 netcrisis-apr-96.html	19-Apr-1996 11:37	3k	
 ppar.memo	08-May-1996 10:44	3k	
 wis042396.html	19-Apr-1996 12:15	1k	

Apache/1.3.12 Server at www.slac.stanford.edu Port 80



Recent (April '96) SLAC Networking Problems

Last Update: April 18, 1996

[Highlighted](#)

[Detailed](#)

[Search](#)

[Phonebook](#)

[[SLAC Computer Services \(SCS\)](#) | [Computer Networking](#)]

We have been experiencing increasingly severe network problems over the last two weeks, with some services being unusable for extended periods over the last couple of days. Many SCS Network and Unix Systems people together with users and a vendor have been working very hard to attempt to isolate the cause and fix it.

Much of the difficulty in pinning the problems down has been due to symptoms that have been intermittent, and it appears that there are multiple causes. Many tests and changes were made with limited effect.

Last night (4/17/96) between 7pm and 10pm two major problems were discovered. An FDDI interface on a new core router was found to be losing its connection to the ring. This was replaced. The second problem was the 100Mbit/sec connection between the same router and an adjacent Ethernet switching hub was observed to be experiencing a high error rate. The connection was moved to a different pair of interfaces. After this was done the network slowness seemed to disappear.

We still have to back-out changes that were made to try and isolate problems, and we are continuing to look for any lingering problems now the major ones appear to be fixed.

If you notice further problems, please report them to the SLAC HELP desk (Email help@slac.stanford.edu, phone (415)926-HELP [4357], FAX (415)926-5400). If you are reporting response time problems by email, then if practical, include the results of a set of pings (say 20) between your computer/Xterminal and the server or host with which you are experiencing slow response and include the name of your computer/Xterminal.

[[Feedback](#) | [Reporting Problems](#)]

Owners: [Les Cottrell](#) and [Chuck Boeheim](#) on behalf of the SCS Network and Systems groups



Reporting Network Response Time Problems

Last Update: April 18, 1996

[Highlighted](#)
[Detailed](#)
[Search](#)
[Phonebook](#)

[[SLAC Computer Services \(SCS\)](#) | [Network Group](#) | [Computer Networking](#)]

If you notice response time problems please report them to the SLAC HELP desk (Email help@slac.stanford.edu, phone (415)926-HELP or (415)926-4357, FAX (415)926-5400). If practical include the results of a set (say 20) pings between your computer/Xterminal and the server or host with which you are experiencing slow response and include the name of your computer/Xterminal.

An example of such a set of pings from `cadhub`, a SunOS workstation (for an AIX machine the equivalent command is `ping -c 20 redwing`), to the `redwing` computer, is shown below:

```
2cottrell@cadhub:~>ping -s redwing 56 20
PING redwing.SLAC.Stanford.EDU: 56 data bytes
64 bytes from REDWING.SLAC.Stanford.EDU (134.79.128.77): icmp_seq=0. time=7. ms
64 bytes from REDWING.SLAC.Stanford.EDU (134.79.128.77): icmp_seq=1. time=6. ms
64 bytes from REDWING.SLAC.Stanford.EDU (134.79.128.77): icmp_seq=2. time=5. ms
64 bytes from REDWING.SLAC.Stanford.EDU (134.79.128.77): icmp_seq=3. time=8. ms
64 bytes from REDWING.SLAC.Stanford.EDU (134.79.128.77): icmp_seq=4. time=6. ms
64 bytes from REDWING.SLAC.Stanford.EDU (134.79.128.77): icmp_seq=5. time=6. ms
64 bytes from REDWING.SLAC.Stanford.EDU (134.79.128.77): icmp_seq=6. time=6. ms
64 bytes from REDWING.SLAC.Stanford.EDU (134.79.128.77): icmp_seq=7. time=6. ms
64 bytes from REDWING.SLAC.Stanford.EDU (134.79.128.77): icmp_seq=8. time=6. ms
64 bytes from REDWING.SLAC.Stanford.EDU (134.79.128.77): icmp_seq=9. time=6. ms
64 bytes from REDWING.SLAC.Stanford.EDU (134.79.128.77): icmp_seq=10. time=6. ms
64 bytes from REDWING.SLAC.Stanford.EDU (134.79.128.77): icmp_seq=11. time=6. ms
64 bytes from REDWING.SLAC.Stanford.EDU (134.79.128.77): icmp_seq=12. time=10. ms
64 bytes from REDWING.SLAC.Stanford.EDU (134.79.128.77): icmp_seq=13. time=6. ms
64 bytes from REDWING.SLAC.Stanford.EDU (134.79.128.77): icmp_seq=14. time=6. ms
64 bytes from REDWING.SLAC.Stanford.EDU (134.79.128.77): icmp_seq=15. time=6. ms
64 bytes from REDWING.SLAC.Stanford.EDU (134.79.128.77): icmp_seq=16. time=5. ms
64 bytes from REDWING.SLAC.Stanford.EDU (134.79.128.77): icmp_seq=17. time=6. ms
64 bytes from REDWING.SLAC.Stanford.EDU (134.79.128.77): icmp_seq=18. time=6. ms
64 bytes from REDWING.SLAC.Stanford.EDU (134.79.128.77): icmp_seq=19. time=6. ms
```

----REDWING.SLAC.Stanford.EDU PING Statistics----

20 packets transmitted, 20 packets received, 0% packet loss
round-trip (ms) min/avg/max = 5/6/10

This example is for a well functioning network. Note the consistent response time (around 6ms), and the 0% packet loss. Also note that the first ping often takes longer than the remainder due to priming the name cache.

[Feedback](#) | [Reporting Problems](#)]

Owner: [Les Cottrell](#)

The 1995-96 Personnel Performance Evaluation Forms (PPARs) are now available in a number of formats suitable for the different computing platforms at SLAC. The following is a description of what is available and the computers for which they are suitable:

ppar96b.txt - A plain ASCII version of the PPAR for Bargaining Unit employees; This version is available for all systems; The Macintosh version of this file is in TeachText format.

ppar96nb.txt - A plain ASCII version of the PPAR for Non-Bargaining Unit employees; This version is available for all systems; The Macintosh version of this file is in TeachText format.

ppar96b.tex - A TeX version of the PPAR for Bargaining Unit employees; This version is available on all systems.

ppar96nb.tex - A TeX version of the PPAR for Non-Bargaining Unit employees; This version is available on all systems.

ppar96b.mif - A FrameMaker 4.0 version of the PPAR for Bargaining Unit employees; This version is available to all systems via anonymous FTP.

ppar96nb.mif - A FrameMaker 4.0 version of the PPAR for Non-Bargaining Unit employees; This version is available to all systems via anonymous FTP.

1996 Bargaining Unit - A Microsoft Word version of the PPAR for Bargaining Unit employees; This version is available to Macintosh users.

1996 Non-Bargaining Unit - A Microsoft Word version of the PPAR for Non-Bargaining Unit employees; This version is available to Macintosh users.

Unix Users will find the formats appropriate to Unix in the AFS directory /afs/slac.stanford.edu/public/doc/forms. This directory includes the ASCII, TeX, and MIF versions of the forms.

VM Users will find the formats appropriate to VM on the T-disk (PPAR96B TXT T, PPAR96NB TXT T, PPAR96B TEX T, and PPAR96NB TEX T).

Macintosh Users will find all formats (including the Microsoft Word versions) in Public Disk 1:Templates & Forms:Personnel. The appropriate files are in separate folders named MS Word, Frame, TeachText, and Textures respectively.

For Windows NT users, the Non-Bargaining Unit template can be found in DOMAIN SLAC:

\\PCHUB\pub\pc\forms\personnel\Non-Bargaining Unit Evaluation.doc

For Windows machines running NFS, mount the volume \\PCHUB\pub. The file is in

\\PC\FORMS\PERSONNEL\NON-BA~1.DOC

or use anonymous ftp to PCHUB and type

get pc\forms\personnel\Non-Bargaining Unit Evaluation.doc"

Questions regarding the Windows NT and Windows versions should be

directed to Dennis Wisinski (WISINSKI@SLAC.STANFORD.EDU), extension 3335.

Users of all systems may obtain copies of the files via anonymous FTP to ftp.slac.stanford.edu in directory /doc/forms. The following files are available:

- ppar96b.mif
- ppar96nb.mif
- ppar96b.txt
- ppar96nb.txt
- ppar96b.tex
- ppar96nb.tex

This can also be accomplished using the World Wide Web via the URL, <ftp://ftp.slac.stanford.edu/doc/forms/>

Questions regarding the content of these files should be directed to Bernie Lighthouse (BURNE@SLAC.STANFORD.EDU), extension 2358. Questions regarding the formats of these files and where they are stored may be directed to Bebo White (BEBO@SLAC.STANFORD.EDU), extension 2907.

IS YOUR CHILD GETTING A QUALITY SCIENCE EDUCATION??

National Science Education Standards were recently released by the National Research Council. How will they impact the way Science is taught in California schools?







SLAC Scientists Helen Quinn and Cherrill Spencer will discuss the need, development, content and uses of the National Science Education (K-12) Standards.

Please join us at 12 noon on Tuesday 23rd April in the main auditorium for this presentation. There will be ample time for your questions.

WIS also advertises its seminars through flyers that are sent to every mail stop at SLAC. We are looking for a new volunteer to photocopy the flyer 160 times on colored paper in the Print Room in A&E and take them to the mail room [someone else prepares the flyer]. If you could fit this once a month task into your schedule please contact Cherrill Spencer. Several people have done this for WIS over the past 5 years, if several of you volunteer then one person could do it for 6 months and then another etc.









P.A. Moore

Index of /archive/1996/hottopic/img

<u>Name</u>	<u>Last modified</u>	<u>Size</u>	<u>Description</u>
 Parent Directory	03-Jun-1996 17:00	-	
 baltay2.jpg	20-Mar-1996 19:04	27k	
 hottopic.gif	20-Mar-1996 19:04	5k	
 nlcschematic.gif	20-Mar-1996 19:04	7k	
 pisin2.jpg	20-Mar-1996 19:04	23k	
 prescott2.jpg	26-Mar-1996 16:04	22k	


















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Index of /archive/1996/hottopic/mperl95

<u>Name</u>	<u>Last modified</u>	<u>Size</u>	<u>Description</u>
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 innerseal3.gif	11-Oct-1995 11:06	1k	
 mperl95.html	18-Oct-1995 10:13	4k	
 paper.gif	11-Oct-1995 13:10	3k	
 perl.gif	12-Oct-1995 16:35	49k	
 photos/	20-Nov-1995 14:58	-	
 tau.gif	16-Oct-1995 09:29	14k	
 tau.html	18-Oct-1995 10:30	8k	

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Index of /archive/1996/hottopic/mperl95/photos

Name	Last modified	Size	Description
 Parent Directory	16-Oct-1995 09:29	-	
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 3nobels.gif	11-Oct-1995 19:25	39k	
 3nobels.html	12-Oct-1995 13:36	1k	
 bigsmile.gif	11-Oct-1995 19:25	49k	
 bigsmile.html	12-Oct-1995 13:36	1k	
 blue_marble.gif	11-Oct-1995 19:25	9k	
 photos.html	12-Oct-1995 13:32	1k	
 podium.gif	11-Oct-1995 19:25	76k	
 podium.html	12-Oct-1995 13:36	1k	
 thumbnail2nobels.gif	11-Oct-1995 19:25	6k	
 thumbnail3nobels.gif	11-Oct-1995 19:25	7k	
 thumbnailbigsmile.gif	11-Oct-1995 19:25	9k	
 thumbnailpodium.gif	11-Oct-1995 19:25	8k	
 thumbnailtiers.gif	11-Oct-1995 19:25	8k	
 tiers.gif	11-Oct-1995 19:25	86k	
 tiers.html	12-Oct-1995 13:36	1k	

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Photos from October 11, 1995 Press Conference at SLAC

The following photos were taken at the press conference held at the
Stanford Linear Accelerator Center.

(Clicking on the thumbnails will display larger versions of the photos.)



Martin Perl addresses members of the press, SLAC employees.



Martin Perl flashes a big smile during the press conference.



SLAC's three Nobel prize winners.



All levels of SLAC employees turned out for the press conference.

Photos by P.A. Moore (xanadu@slac.stanford.edu).

[\[SLAC\]](#)[\[Back to Martin Perl Page\]](#)

Henniss

Martin Perl, Nobel Laureate



Photo by P.A. Moore (xanadu@slac.stanford.edu).

[\[SLAC\]](#)[\[Back to Photos Page\]](#)

SECRET

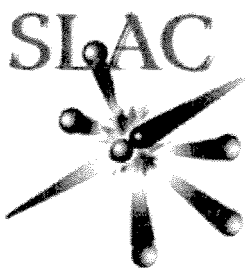
1914/1915

8-10

1930

2

Box 5000





SLAC Home Page: Detailed

2 Jan 1996

Welcome	Highlighted	Detailed	What's New	Search
Phonebook				

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Page Contents

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- [Information from SLAC \(including SPIRES Databases\)](#)
- [SLAC Computing and Communications](#)
- [SLAC Institutional Information](#)
- [SLAC Divisions, Groups, & Programs](#)
- [Useful Information Elsewhere](#)

• SLAC Research

Particle Physics Experiments:

[BABAR](#), [BES](#), [E143](#), [E144](#), [E154](#), [mQ](#), [SLD](#).

Particle Astrophysics Experiments:

[Group K](#).

Synchrotron Radiation Experiments:

[SSRL](#)

Accelerator Research & Development:

[NLC](#), [NLCTA](#), [PEP-II](#), [More Accelerator Physics](#).

Accelerator Operations:

[Linac](#):

[Yesterday*](#), [Today*](#), [This Week*](#), [This Year*](#).

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[Status](#).

Theoretical Physics:
[Interests.](#)

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[SLAC Phonebook](#), [HEP Phonebook](#), [HEP Institutions](#), [SLAC X.500 White Pages](#), [More Directories](#).

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[SPIRES-HEP](#), [Current PPF List](#), [More Databases](#).

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Conferences:

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[FreeHEP](#).

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[Computer Networking](#), [Emergency](#), [Telephone Services](#), [Videoconferencing](#).

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[Getting Started](#), [DRAW](#).

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Administrative Tools:

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USENET News:

[slac.announce.important](#), [More USENET News](#).

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[Education](#), [Summer Institute](#).

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● Useful Information Elsewhere

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HEP Experiments:

[ALEPH](#), [DELPHI](#), [L3](#), [OPAL](#); [CLEO II](#); [H1](#), [ZEUS](#); [CDF](#), [D0](#); [More Experiments Online](#).

HEP Institutions:

[Brown](#) (including *The Virtual Review*), [CERN](#), [Cornell](#), [DESY](#), [Fermilab](#), [IHEP/China](#), [LANL](#) (including [E-Prints](#)), [LBL](#) (including [PDG](#)), [LLNL](#), [More HEP Institutions](#).

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[Stanford University](#) and its [Libraries](#) and [Medical Center](#), [More Local Area Resources](#).

Network Resources:

[BBN Planet](#), [CREN/BITNET](#), [ESnet](#) (including [X.500 White Pages](#)), [HEPIC](#), [JANET](#), [References](#), [Standards](#).

Other Information Sources:

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* Access to this link is restricted to SLAC users.

+ When the "SLAC Divisions, Groups, & Programs" section gets large, we intend to move parts of it, e.g., "Groups, Departments, Etc.," and "Organization Charts" off to another page.

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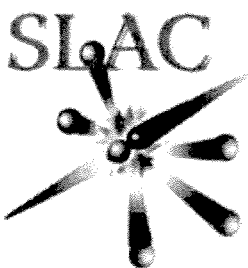
[Web Support](#)

[Web Authoring](#)

[Test Home](#)

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Winters



SLAC Home Page: Highlighted

19 Dec 1995

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Winters

SLAC ARCHIVES

Collection 1000000








SLAC ARCHIVES COLL. 1000000
SERIES 2 SUBSERIES 1
BOX 8 FOLDER 8

Index of /archive/1996/restore0103/accel

<u>Name</u>	<u>Last modified</u>	<u>Size</u>	<u>Description</u>
 Parent Directory	19-Dec-1995 21:53	-	
 nlc/	02-Jan-1996 15:35	-	
 pepii/	01-Dec-1995 12:46	-	




Apache/1.3.12 Server at www.slac.stanford.edu Port 80

Index of /archive/1996/restore0103/accel/nlc

<u>Name</u>	<u>Last modified</u>	<u>Size</u>	<u>Description</u>
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 ee.gif	02-Jan-1996 15:43	13k	
 figure/	20-Nov-1995 14:27	-	
 groups/	26-Oct-1995 14:50	-	
 workshop.html	02-Jan-1996 15:37	1k	
 zdr/	26-Oct-1995 15:38	-	




Apache/1.3.12 Server at www.slac.stanford.edu Port 80

Index of /archive/1996/restore0103/accel/nlc/figure

<u>Name</u>	<u>Last modified</u>	<u>Size</u>	<u>Description</u>
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 fnal-talk-richard/	20-Nov-1995 14:34	-	
 general/	19-Jun-1995 15:02	-	



Apache/1.3.12 Server at www.slac.stanford.edu Port 80

Index of /archive/1996/restore0103/accel/nlc/figure/fnal- talk-richard

<u>Name</u>	<u>Last modified</u>	<u>Size</u>	<u>Description</u>
 Parent Directory	20-Nov-1995 14:27	-	
 eps/	20-Nov-1995 14:28	-	
 thumbnail/	20-Nov-1995 14:46	-	



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Index of /archive/1996/restore0103/accel/nlc/figure/fnal- talk-richard/eps

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Apache/1.3.12 Server at www.slac.stanford.edu Port 80

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Apache/1.3.12 Server at www.slac.stanford.edu Port 80

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 eps/	19-Jun-1995 12:19	-	
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 index	19-Jun-1995 13:35	1k	
 tail.html	19-Jun-1995 13:33	1k	
 tail2.html	19-Jun-1995 15:02	1k	
 thumbnail/	05-Jun-1995 16:52	-	




Apache/1.3.12 Server at www.slac.stanford.edu Port 80

Index of /archive/1996/restore0103/accel/nlc/figure/gene

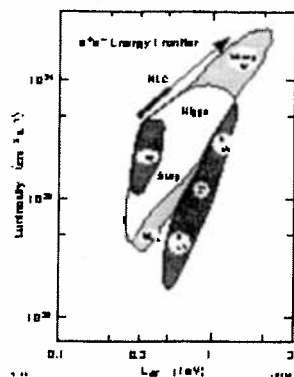
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Apache/1.3.12 Server at www.slac.stanford.edu Port 80



Index of /archive/1996/restore0103/accel/nlc/figure/gene

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Apache/1.3.12 Server at www.slac.stanford.edu Port 80



Index of /archive/1996/restore0103/accel/nlc/groups

<u>Name</u>	<u>Last modified</u>	<u>Size</u>	<u>Description</u>
 Parent Directory	02-Jan-1996 15:35	-	
 ir/	02-Nov-1995 11:48	-	

Apache/1.3.12 Server at www.slac.stanford.edu Port 80

NLC IR and Backgrounds Group

Calander of Deadlines and Meetings Leading up to SNOWMASS 1996

12/1/95	Text for ZDR frozen and sent to SLAC PUBS. Authors lose control. It is assumed to be >80% complete. All further input must be in form of addenda and errata sent to PUBS. They will insert it into document.
12/18/95	Internal ZDR Review at SLAC
2/1/96	Edited and formatted version of ZDR returned from PUBS
2/15/96	All corrections to 12/1/95 submission as edited back to pubs; addenda or errata to pubs
~2/21/96	LC Physics Workshop at SLAC
3/1/96	ZDR Draft mailed to reviewers
3/15/96	External Review of ZDR
3/15-4/15/96	Incorporate corrections resulting from external review
5/1/96	Final Edition of ZDR to Printer
6/23/96	Snowmass 1996 begins

Pointers to Information of Interest to the Group:

- **Current Draft (10/16/95) of the NLC Zero-th Order Design Report**
 - Table of Contents
 - **Chapter 12: IR and Backgrounds**
 - PostScript Version
 - PDF Version
- **The International Linear Collider Technical Review Committee Report:**
 - Section 2.6: Experimentation
 - PostScript Version

People:

- **IR Group Members:**

Baseem Barakat	BARAKAT@phys.latech.edu	GEANT simulation of backgrounds at IR
Gordon Bowden	GBB@slac.stanford.edu	Engineer in charge of FF Quad mounting, vibration suppression expert
Dave Conner	CONNER@ax61.bnl.gov	Recent expression of interest

Stan Hertzbach	HERTZBAC@slac.stanford.edu	Working group co-chair; Calculation of Synchrotron radiation backgrounds near IP
Tom Markiewicz	TWMARK@slac.stanford.edu	Working group co-chair; GEANT simulation of backgrounds in detector
Takashi Maruyama	TVM@slac.stanford.edu	EGS simulation of backgrounds at IR
Robert Messner	ROM@slac.stanford.edu	Calculation of Muon Backgrounds
Nikolai Mokhov	MOKHOV@fnalv.fnal.gov	Calculation of Muon Backgrounds
Tracy Usher	USHER@slac.stanford.edu	Calculation of maximum Backgrounds tolerable near IP from track reconstruction
Mike Woods	MWOODS@slac.stanford.edu	Optical Means of vibration measurement; design of beam dump lines and its instrumentation, esp. polarimetry

• **Accelerator Designers who Regularly Interact with the IR group**

Chris Adolphsen	STAR@slac.stanford.edu	Linac: Ground motion expert
Dave Burke	DAVEB@slac.stanford.edu	Overall coordinator of all NLC activities at SLAC
Clive Field	SARGON@slac.stanford.edu	Expert on SLC and FFTB beam line instrumentation
Dick Helm	RHH@slac.stanford.edu	Optics Expert who generates all FF transport decks
John Irwin	IRWIN@slac.stanford.edu	NLC Final Focus Group Organizer
Kwang-Je Kim	Kwang_Je_Kim@MacMail7.lbl.gov	NLC Gamma-Gamma IR Group Organizer
Tor Raubenheimer	TOR@slac.stanford.edu	NLC damping Ring Group Organizer; in overall charge of the Zero-th order design report
Jim Spencer	JUS@slac.stanford.edu	In charge of Dump Lines; produces ABEL simulation files for various parameter sets
Dieter Walz	DWALZ@slac.stanford.edu	SLAC engineer designing all beam dumps, conventional magnets, collimators, and muon spoilers
Frank Zimmerman	FRANKZ@slac.stanford.edu	Very active Final Focus group member

• **NLC Detector Group Members who Regularly Interact with the IR group**

Marty Breidenbach	MIB@slac.stanford.edu	Co-chair of LC Detector Working group
Chris Damerell	C.DAMERELL@slac.stanford.edu	CCD Vertex Detector Expert
Dave Jackson	DJACKSON@slac.stanford.edu	Vertex Reconstruction
Bob Jacobsen	Bob_Jacobsen@slac.stanford.edu	Co-chair of LC Detector Working group
Jim (J.J.) Russell	RUSSELL@slac.stanford.edu	DAQ and trigger expert: looking at schemes appropriate to NLC physics and backgrounds

• **NLC Physics Group Members who Regularly Interact with the IR group**

Tim Barklow	TIMB@slac.stanford.edu	Calculations of hadron backgrounds, ISR, beamstrahlung ; strongly interacting Higgs
Jim Brau	JIMBRAU@slac.stanford.edu	Co-chair of trilinear coupling working group
Phil Burrows	BURROWS@slac.stanford.edu	Co-chair of QCD working group
Mike Fero	MFERO@slac.stanford.edu	General Interest; SLC polarization expert
Ray Frey	RAYFREY@slac.stanford.edu	Co-chair of top working group; investigating effects of ISR and beamstrahlung on top measurements
John Jaros	JOHN@slac.stanford.edu	General Interest; SLD tracking and B physics expert
Charles Prescott	PRESCOTT@slac.stanford.edu	General Interest; SLAC group leader
Mike Ronan	RONAN@lbl.gov	GEANT simulation of backgrounds at Gamma-Gamma IR
Achim Weidemann	ACHIM@slac.stanford.edu	SLAC E144 collaborator; design of Gamma-Gamma IP at NLC

• **Consultants Regularly Contacted by the IR group**

Pisin Chen	CHEN@slac.stanford.edu	Theoretical calculations of beam-beam effects; co-author of ABEL simulation
Hobie DeStaebler	HOBEY@slac.stanford.edu	B factory Background Expert
Glenn Horton-Smith	GAS@slac.stanford.edu	E144 thesis student: expert on upgrades to ABEL beam-beam interaction simulation
John Jiang	JIANG@slac.stanford.edu	SLC background calculations
Lew Keller	KELLER@slac.stanford.edu	Has produces all NLC muon background calculations to date
Sayed Rokni	ROKNI@slac.stanford.edu	SLAC radiation physics officer familiar with MUCARLO muon background calculation

		program
--	--	---------

Fermilab LC meeting November 16-18, 1995:

- Physicists who have expressed interest in either detector or IR working groups:

NAME	AFFILIATION	e-mail
Chris Adolphsen	Stanford Linear Accelerator Center	star@slac.stanford.edu
Muzaffer Atac	Fermi National Accelerator Laboratory	matac@fnalv.fnal.gov
M. Basem Barakat	Louisiana Tech. University	barakat@phys.latech.edu
Martin Briedenbach	Stanford Linear Accelerator Center	mib@slac.stanford.edu
Bob Jacobsen	University of California, Berkeley	jake@cernvm.cern.ch
Weiren Chou	Fermi National Accelerator Laboratory	chou@adcalc.fnal.gov
Stanley S. Hertzbach	U. of Massachusetts at Amherst	hertzbac@slac.stanford.edu
Thomas W. Markiewicz	Stanford Linear Accelerator Center	twmark@slac.stanford.edu
Takashi Maruyama	Stanford Linear Accelerator Center	tvm@slac.stanford.edu
Nikolai Mokhov	Fermi National Accelerator Laboratory	mokhov@fnalv.fnal.gov
Raymond Stefanski	Fermi National Accelerator Laboratory	stefanski@fnal.gov
Tracy Usher	SLAC	usher@slac.stanford.edu
Michael Woods	Stanford Linear Accelerator Center	mwoods@slac.stanford.edu

- Preliminary Schedule of Talks in the Combined IR and Detector Working Groups Session:

9:00	9:15	0:15	Tom Markiewicz	Introduction to IR Issues
9:15	9:35	0:20	Tracy Usher	LC Backgrounds: The SLC/SLD Experience
9:35	10:05	0:30	Stan Hertzbach	Synchrotron Radiation at the IP
10:05	10:25	0:20	Coffee	
10:25	10:55	0:30	Takashi Maruyama	Beam-Beam and SR backgrounds in EGS
10:55	11:40	0:45	Chris Adolphson	Ground Motion Studies at SLAC
11:40	12:00	0:20	Marty Breidenbach	SLD Triplet Motion Data
12:00	12:20	0:20	Mike Woods	Ground Motion and an Optical Anchor for the FF Quads
12:20	13:30	1:10	Lunch	
13:30	14:10	0:40	to be confirmed	Physics Processes which provide Detector Performance Benchmarks
14:10	14:30	0:20	to be confirmed	Software Tools for Detector Development
14:30	14:45	0:15	open	open

Background Limits from Vertexing Reconstruction

14:45	15:05	0:20	Tracy Usher	Background Limits from Vertexing Reconstruction Constraints
15:05	15:25	0:20	Bob Kephart	High Field SC Magnets

NLC November 13, 1995

NLC ZDR

Table of Contents

Introduction, Physics Goals, and SLC Experience

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2. Polarized Electron Source
3. Positron Source
4. Damping Rings
5. Bunch Compressors and Pre-Linac
6. Low Frequency RF Design
7. Main Linac
8. Main Linac RF Design
9. Collimation Systems
10. Switch-Yard and Big-Bend
11. Final-Focus
12. IR Region ([pdf](#), [ps](#))
13. Multiple Bunch Issues
14. Spin Transport
15. Operations and Controls
16. Instrumentation
17. Conventional Facilities
18. Reliability
19. Conclusions

Appendix A - Future Power Sources

Appendix B - Gamma-Gamma IR

Appendix C - RF Gun

Appendix D - Vibration Isolation and Measurements

Appendix E - Feedback Theory and Implementation

Appendix F - Detector Design and Parameters

[NLC home page](#)



[\[Project Database\]](#) [\[Near-IR\]](#) [\[Aerial Picture\]](#) [\[PEP-II Polo Shirt Logo\]](#)

The PEP-II facility consists of two independent storage rings, one located atop the other in the PEP tunnel. The high-energy ring, which stores a 9-GeV electron beam, is an upgrade of the existing PEP collider; it reutilizes all of the PEP magnets and incorporates a state-of-the-art copper vacuum chamber and a new radio-frequency system capable of supporting a stored beam of high current. The low-energy ring, which stores 3.1-GeV positrons, will be newly constructed. Injection is achieved by extracting electrons and positrons at collision energies from the SLC and transporting them each in a dedicated bypass line. The low-emittance SLC beams will be used for the injection process. The collider will be completed in October 1998.

The term "asymmetric" refers to the fact that the e^- and e^+ energies are not equal. This results in a collision center of mass which is moving in the laboratory. The motion of the center of mass is crucial for the study of the matter versus anti-matter discrepancy discussed below.

The construction of PEP-II is a collaboration of [SLAC](#), [LBL](#), and [LLNL](#).

A new detector, [BABAR](#) is being constructed to take advantage of the high-intensity collisions.

The *B*-Factory facility, PEP-II and BABAR, will pursue a broad agenda of physics involving the heavy quark and heavy lepton sector. At full luminosity, PEP-II will produce about 10^8 b and c quarks, and roughly the same number of tau's per year.

In particular, the *B*-Factory will pursue the question of why we live in a matter-dominated Universe. At the beginning of the Big Bang, matter and anti-matter were produced in equal amounts -- what tipped the balance in favor of matter? Understanding the mechanism is crucial if we are to have a full understanding of the evolution of our Universe. A small imbalance in the matter to anti-matter ratio at primordial times, one part in about 10^9 , would suffice. In such a situation, all the matter and anti-matter, except the tiny unpaired excess, would have annihilated to form photons (which we can detect now). The unpaired excess, all matter, evolved to form the Universe.

To substantiate this paradigm, we need experimental evidence that conclusively establishes the mechanism responsible for creating the tiny matter excess. There are several competing theoretical models for this mechanism. The main role for the *B*-Factory will be to make a broad set of measurements capable of confronting the crucial question of what happened to all the anti-matter. It is fascinating to realize that with the *B*-Factory, we will be able to confront crucial physics issues which took place less than 10^{-34} seconds after the start of the Big Bang.

[\[SLAC Home Page\]](#)[\[BABAR Detector Home Page\]](#) [\[Near-IR Home Page\]](#)

Graphics by [Terry Anderson](#).

Last updated July 7, 1995

For comments and questions about the PEP-II WWW Home Page, contact [Andrea Chan](#) or [George Crane](#).