

SLAC W&W, VM Reduction Engrs. HELPERS. HTML
11/06/1994

SLAC ARCHIVES COLL. 11/06/1994
SERIES SUBSERIES
BOX FOLDER 02

```

          d
          d
          d
jj  m m mm  ddd d  eeee  k  k  eeee  n nnn
j  mm m  m  d  dd  e  e  k  k  e  e  nn  n
j  m  m  m  d  d  eeeee k  k  eeeee n  n
j  m  m  m  d  d  e  e  kk k  e  n  n
j  m  m  m  d  dd  e  e  k  k  e  e  n  n
j  m  m  m  ddd d  eeee  k  k  eeee  n  n
j
j
jjj

```

```

h          11          h
h          l          h
h          l          h
h hhh      eeee      l  p ppp  h hhh      eeee      p ppp      ssss
hh  h  e  e      l  pp  p  hh  h  e  e      pp  p  s  s
h  h  eeeee      l  p  p  h  h  eeeee      p  p  ss
h  h  e      l  p  p  h  h  e      p  p  ss
h  h  e  e      l  pp  p  h  h  e  e      pp  p  s  s
h  h  eeee      111  p ppp  h  h  eeee      p ppp      ssss
p
p
p

```

```

ff  11          00000  33333
f  f  l          0  0  3  3
f  l          0  00  3
f  l          0  0 0  3
fffff  l  oooo  r rrr  aaaa  0  0 0  3333
f  l  o  o  rr  r  a  0  0  0  3
f  l  o  o  r  aaaa  0 0  0  3
f  l  o  o  r  a  a  00  0  3
f  l  o  o  r  a  aa  0  0  3  3
f  111  oooo  r  aaaa a  00000  33333

```

<IsIndex>

<title>HEP-database HELP</title>

<h2>SHOW/EXPLAIN commands in the preprint-database search</h2>

* Use the SHOW (SHO) and EXPLAIN (EXP) commands to learn more about the HEP-database. For example,<pre>

```
SHOW SUBFILE DESCRIPTION      (= SHO SUBDES)
```

</pre>

gives a brief description of the HEP-database. An equivalent command is EXPLAIN HEP. The term 'subfile' above means 'database'. If you type<pre>

```
SHOW SEARCH TERMS              (= SHO SEA TER)          or
```

```
SHOW INDEXES                   (= SHO IND)
```

</pre>

you will get the list of the HEP-database search terms and their valid aliases. Use these search terms ('indexes') with the

FIND and BROWSE

commands. The command<pre>

```
SHOW SUBFILE SIZE              (= SHO SUBSIZ)
```

</pre>

will show how many records are stored in the database.

<pre></pre>

Return to the main HEP-database page, select help for the FIND or

 BROWSE commands, or see instructions for

 displaying the result.

<P>

SLAC 10000. VM Reduction Pages. HER HTML
08/18/1992

SLAC ARCHIVES COLL _____
SERIES 7 SUBSERIES 1
BOX 5 FOLDER 22

```

ff      ll      00000      22222
f f     l       0        0      2        2
f       l       0        00      2        2
f       l       0000      r rrr   aaaa   0        0 0      2
ffffff  l       o        o      rr    r      a      0    0 0      222
f       l       o        o      r      aaaaa  0 0    0      2
f       l       o        o      r      a      a  00      0      2
f       l       o        o      r      a      aa 0        0      2
f      ll      0000      r      aaaa a    00000      2222222

```

<TITLE>SLAC SPIRES </TITLE>

<NEXTID 2>

<H1>SLACVM SPIRES HEP Preprint Database</H1>

<DL>

<DT>Search

<DD>Perform search using standard SPIRES terms.

<DT>Help

<DD>Get help for SPIRES

</DL>

SLAC WWW, VM Production Tapes. HER. INDEX
11/22/1994

ARCHIVES COLL. 02-07
SUBSERIES
FOLDER 24

```

          d
          d
          d
jj      m m mm      ddd d      eeee      k      k      eeee      n nnn
j      mm m m      d dd      e e      k k      e e      nn n
j      m m m      d d      eeeee      k k      eeeee      n n
j      m m m      d d      e      kk k      e      n n
j      m m m      d dd      e e      k k      e e      n n
j      m m m      ddd d      eeee      k k      eeee      n n
j
j
jjj

```

```

h
h
h
h hhh      eeee      p ppp
hh h      e e      pp p
h h      eeeee      p p
h h      e      p p
h h      e e      pp p      ..
h h      eeee      p ppp      ..
          p
          p
          p
          i
          ii      n nnn      ddd d      eeee      x x
          i      nn n      d dd      e e      x x
          i      n n      d d      eeeee      xx
          i      n n      d d      e      xx
          i      n n      d dd      e e      x x
          iii      n n      ddd d      eeee      x x

```

```

ff      ll
f f      l
f      l
f      l      oooo      r rrr      aaaa      00000      33333
fffff      l      o o      rr r      a      0 0 0      3 3
f      l      o o      r      aaaa      0 0 0      3333
f      l      o o      r      a      a      00 0      3
f      l      o o      r      a aa      0 0 0      3 3
f      ll      oooo      r      aaaa a      00000      33333

```

Job: hep.index
Date: Mon Jun 22 15:48:36 1998

<IsIndex>
<TITLE>SLAC SPIRES - HEP DATABASE</TITLE>
<h1>SLAC SPIRES: HEP Preprint database search</h1>
Send corrections to: LIBRARY@SLAC.STANFORD.EDU . Use QSPIRES search language (see examples below). Note that there is no possibility for iterative search (yet) in WWW. Therefore, when needed, combine several criteria in a single request. Need more help ?

Examples:

```
<P>
<pre><b>
  show indexes
  find author perl, m & title tau & date before 1980
  find title prefix supercollid and date 1994
  find t so2n+1 [finds title SO(2n+1)!]
  find bulletin-bd hepex and date-added 9/94
  find cn mark-iii and date after march 1991
  browse coden physics letters
  find c phlta, 70b, 487
  find a abe & date 1988 (using wwwcite [shows citations!]
  find author gross, david and journal phys rev
  browse affiliation caltech
  find af cal tech and date 1994 (result
  browse topic higgs
  find topic higgs boson or title higgs & date 6-94
  browse last ppf
  find ppf 9442 (seq rs
</b></pre>
```

<P>
<P>
To learn more about authors, institutions, or acronyms, try WHOIS, WHEREIS, or WHATIS:

```
<P>
<pre><b>
  whois ginsparg
  whereis cern
  whatis sld
</b></pre>
```

<P>
Find here the list of
top-cited articles in HEP database.<p>
See also other SPIRES databases, or
SPIRES News, or
the SLAC home page.

<P>
<address>22 November 1994 </address>


```

          d
          d
          d
jj      m m mm      ddd d      eeee      k      k      eeee      n nnn
j      mm m m      d dd      e e      k k      e e      nn n
j      m m m      d d      eeeee      k k      eeeee      n n
j      m m m      d d      e      kk k      e      n n
j      m m m      d dd      e e      k k      e e      n n
j      m m m      ddd d      eeee      k k      eeee      n n
j
j
jjj

```

```

h
h
h
h hhh      eeee      p ppp      n nnn      aaaa      m m mm      eeee      ssss
hh h      e e      pp p      nn n      a      mm m m      e e      s s
h h      eeeee      p p      n n      aaaa      m m m      eeeee      ss
h h      e      p p      n n      a a      m m m      e      ss
h h      e e      pp p      n n      a aa      m m m      e e      s s
h h      eeee      p ppp      n n      aaaa a      m m m      eeee      ssss
p
p
p

```

```

ff      ll      00000      22222
f f      l      0      0      2      2
f      l      0      00      2
f      l      oooo      r rrr      aaaa      0      0      0      2
fffff      l      o o      rr r      a      0      0      0      222
f      l      o o      r      aaaa      0      0      0      2
f      l      o o      r      a a      00      0      2
f      l      o o      r      a aa      0      0      2
f      ll      oooo      r      aaaa a      00000      2222222

```

<TITLE>SLAC SPIRES </TITLE>
<NEXTID 2>
<H1>SPIRES - Hepnames Database - World-Wide HEP e-mail directory </H1>
<DL>
<DT><A NAME=0 HREF=http://slacvm.slac.stanford.edu/FIND/Hepnames<search</A
<DD>Perform search using standard SPIRES terms.
<DT>Help<
<DD>Get help for SPIRES
</DL>

SLAC 111111. VM Production Pages. HER NAMES, INDEX
09/23/1994

SLAC ARCHIVES COLL. 111111
SERIES 111111 SUBSERIES 111111
BOX 111111 FOLDER 111111

```

          d
          d
          d
jj      m m mm      ddd d      eeee      k      k      eeee      n nnn
j      mm m m      d dd      e e      k k      e e      nn n
j      m m m      d d      eeeee      k k      eeeee      n n
j      m m m      d d      e      kk k      e      n n
j      m m m      d dd      e e      k k      e e      n n
j      m m m      ddd d      eeee      k k      eeee      n n
j
j
jjj

```

```

h
h
h
h hhh      eeee      p ppp      n nnn      aaaa      m m mm      eeee      ssss
hh h      e e      pp p      nn n      a      mm m m      e e      s s
h h      eeeee      p p      n n      aaaa      m m m      eeeee      ss
h h      e      p p      n n      a a      m m m      e      ss
h h      e e      pp p      n n      a aa      m m m      e e      s s
h h      eeee      p ppp      n n      aaaa a      m m m      eeee      ssss
p
p
p

```

```

ff      ll
f f      l
f      l
f      l
fffff      l      oooo      r rrr      aaaa      00000      22222
f      l      o o      rr r      a      0 0 0 0 2
f      l      o o      r      aaaa      0 0 0 222
f      l      o o      r      a a      00 0 2
f      l      o o      r      a aa      0 0 2
f      ll      oooo      r      aaaa a      00000      2222222

```

Job: hepnames.index
Date: Tue Jun 30 13:35:22 1998

<IsIndex>
<TITLE>SLAC SPIRES HEPNAMES</TITLE>
<h1>SLAC SPIRES: HEPNAMES database search</h1>
<P>
Worldwide e-mail addresses of people related to high-energy physics
including those at SLAC.
Use standard QSPIRES search terms such as ...
<pre>
 query T. Berners-Lee
 whois chris jones
 query Armstrong, B. [note the position of comma!]
 query prefix Spiegel
 whois bjorken or drell [use OR, not AND, to retrieve two addresses]
 sho filesize
</pre>
<P>
<P>
Send corrections/additions to: HEPNAMES@SLAC.STANFORD.EDU
<P>
<P>
See also the HEP-preprints database,
other SPIRES databases,
or the SLAC home page.
<P>
<address>23 Sep 1994 </address>

SLAC 10000. VM Production Pages. HMAIN. HTML
08/20/1992

SLAC ARCHIVES CO. 00-072
SERIES 1 SUBSERIES 2
BOX 5 FOLDER 57

```
Job: hlmain.html
Date: Tue Jun 30 15:37:55 1998
```

<TITLE>HEPLIB</TITLE>

<H1>HEPLIB</H1>

<P>

The first HEPLIB user's meeting was held at the SSC Laboratory, Dallas, Texas, September 19-20, 1991. Fifty-four scientists from thirty-one High Energy Physics research institutes and universities met for two full days to discuss the support and environments of High Energy Physics computing and to form and define the scope of a HEPLIB Users Group.

<H3>Initial Objectives</H3>

<P>

There was a general consensus for the following objectives:

HEPLIB should be

world users group for enhancements, communications, and distribution of software in the HEP computing environments.

HEPLIB will collect, maintain, document, and distribute shareable application software for HEP computing as well as non-HEP applications, including code management systems in heterogeneous environments, data base systems, and automatic installation and test procedures.

(See FreeHEP).

HEPLIB should promote and recommend industry, as well as HEP computing standards as appropriate, including operating systems, distributed computing environments, quality assurance, version control, and information exchange.

A

steering committee

was formed to plan subgroups, initiate exchange and communication, plan logistics, arrange for meetings, begin planning for a HEPLIB Newsletter, and look into questions of manpower and funding for the HEPLIB Users Group.

<h3>Progress</h3>

The current status of HEPLIB is summarized in three working documents:

<dl>

<dt>

Note 92-02

<dd>Summary - The HEPLIB'92/KEK International Users Meeting

<dt>

Note 92-03

<dd>H E P L I B - Consensus and Objectives

<dt>

Note 92-04

<dd>Standards for Certified Software in HEPLIB

</dl>

<H3>Contacts</H3>

<P>

Initially, the following addresses may be used to contact the HEPLIB User Group :

<XMP>

Miguel Marquina

Herald Johnstad

CN Division
CERN
CH-1211 Geneve 23
Switzerland

Tel (022) 767-4912
Fax (022) 767-7155

Marquina@CERNVM
</XMP>

SSC Laboratory MS-2001
2550 Beckleyemeade Avenue
Dallas, Texas 75237
U.S.A.

Tel (214) 708-6000
Tel (214) 708-0006

Johnstad@SSCVX1.SSC.GOV

SAC WJW, V M Production Pages. HSTER. HTML
08/20/1992

SIAC ARCHIVES COLL. 00-072
SERIES 7 SUBSERIES 7
BOX 7 FOLDER 2

[illegible]

```
Job: hlsteer.html
Date: Tue Jun 30 15:38:03 1998
```

<TITLE>HEPLIB steering committee</TITLE>
<H2>HEPLIB steering committee</H2>

The HEPLIB Steering Committee (HEPC) consists of volunteers from various scientific institutions. HEPC initiates information exchange methods and communication, plans logistics and meetings, and coordinates the development of proposals and guidelines proposed by the HEPLIB Users Group.

<p>

Current members of HEPC are:

<dl>		
<dt>	K. Amako	<dd>KEK
<dt>	R. Brun	<dd>CERN
<dt>	S. Frederiksen	<dd>SSCL
<dt>	T. Gabriel	<dd>ORNL
<dt>	I. Gaines	<dd>FNAL
<dt>	T. Handler	<dd>U of Tennessee
<dt>	B. Hollebeek	<dd>U of Pennsylvania
<dt>	H. Johnstad	<dd>SSCL
<dt>	T. Johnson	<dd>SLAC/Boston U
<dt>	M. Marquina	<dd>CERN
<dt>	E. Pace	<dd>INFN
<dt>	A. Palounek	<dd>LANL
<dt>	J. Peters	<dd>DESY
<dt>	L. Price	<dd>ANL
<dt>	J. Shiers	<dd>CERN
<dt>	Y. Watase	<dd>KEK
<dt>	S. Youssef	<dd>SCRI
</dl>		

SLAC WWW. VM Production Regs. HOTTOPIC.HTML
09/06/1999

SLAC ARCHIVES COLL 4072
SERIES 2 SUBSERIES 1
BOX 1 FOLDER 1

[illegible]

```
Job:  hottopic.html
Date:  Tue Jun 30 13:45:29 1998
```

<title>SLAC Hot Topics, Now and Then</title>

<h1>SLAC Hot Topics, Now and Then</h1>

<address>SLAC 6 Sep 1994 </address>

<p>

This panel is under construction.

<p>

Periodically, there's a topic of immediate interest to a sufficient number of people at SLAC that it becomes, for a short while, the "SLAC Hot Topic" and appears as a link in the introductory part of the SLAC Home Page.

This page is a repository for the current hot topic(s) and previous ones still relevant.

<p>

<h2>Current Hot Topic</h2>

There is no current SLAC Hot Topic.

<h2>Previous Hot Topics</h2>

<p>

<dl compact>

<dt>

<a HREF="http://www.slac.stanford.edu/winters/pub/www/hot-topic/B-Factory-Review B-Factory Review

<dd>DOE Management Systems Review of the PEP-II and BaBar and related SLAC, LBL, and LLNL management systems (August, 1994).

<dt>SLAC Summer Institute

<dd>The "22nd Annual SLAC Summer Institute on Particle Physics: Particle Physics, Astrophysics and Cosmology," along with a

<a HREF="http://www.slac.stanford.edu/winters/pub/www/ssi/computerfair-1994.gif" (August, 1994).

<dt>Drell Report</>
<dd>"Executive Summary: Conclusions and Recommendations"

for the future of particle physics in the United States, along with related HEPAP correspondence

(June, 1994).

</dl>

<hr>

<p>

The SLAC "Hot Topic" grew out of discussions among SLAC WWW wizards and Lilian DePorcel.

<p>

<address>Winters</add>

<!-- 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 omit

<!-- 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 explic

<!-- 6 Sep 94 by Winters Make B-Factory Review old Hot Topic re PAK (w ~2wks l

<!-- now first "no Hot Topic" state since it started -->

SLAC 1000. VM Production Pages. HYPERTEXT. HTML
08/26/1993

SLAC ARCHIVES ONL CO-072
SERIES 5. 1993-1994 2
BOX 2. 1993-1994 60

```

      d
      d
      d
jj   m m mm   ddd d   eeee   k   k   eeee   n nnn
  j   mm m   m   d   dd   e     e   k   k   e     e   nn   n
  j   m   m   m   d     d   eeeee   k k   eeeee   n     n
  j   m   m   m   d     d   e       kk k   e       n     n
  j   m   m   m   d   dd   e     e   k   k   e     e   n     n
  j   m   m   m     ddd d   eeee   k     k   eeee   n     n
j
jjj

```

```

h
h
h
h hhh      y      y      p ppp      eeee      r rrr      ttttt      eeee      x      x
hh      h      y      y      pp      p      e      e      rr      r      t      e      e      x      x
h      h      y      y      p      p      eeeee      r      t      eeeee      xx
h      h      y      y      p      p      e      r      t      e      xx
h      h      y      yy      pp      p      e      e      r      t      t      e      e      x      x      ..
h      h      yyy      y      p ppp      eeee      r      tt      eeee      x      x      ..
      y      p
      y      p
      yyy      p

```

```

ff      ll      00000      22222
f  f    l      0      0      2      2
f      l      0      00      2
f      l      0000      r rrr      aaaa      0      0 0      2
ffffff   l      o      o      rr      r      a      0      0 0      222
f      l      o      o      r      aaaaa      0 0      0      2
f      l      o      o      r      a      a      00      0      2
f      l      o      o      r      a      aa      0      0      2
f      ll      0000      r      aaaa a      00000      2222222

```

Job: hypertex.html
Date: Tue Jun 30 15:16:55 1998

```

<title>Introduction to Hypertext</title>
<h1>Introduction to Hypertext</h1>
<address><a HREF=slacinst.html>SLAC</a> 24 Aug 1993 </address>
Ted Nelson coined the term "hypertext" in 1965.
Here's some of what he had to say about it in 1974 in his
seminal work, "Dream Machines" (1):
<p>
<blockquote>
By "hypertext" I mean non-sequential writing.
<p>
Ordinary writing is sequential for two reasons. First, it grew out of
speech and speech-making, which have to be sequential; and second,
because books are not convenient to read except in a sequence.

But the <i>structures of ideas</i> are not sequential. They tie
together every which-way. And when we write, we are always trying to
tie things together in non-sequential ways (see nearby). The
<i>footnote</i> is a break from sequence; but it cannot readily
be extended (though some, like Will Cuppy, have toyed with the
technique)....
</blockquote>
<p>
See <a HREF=http://info.cern.ch/hypertext/History.html>hypertext history</a>
and this
<a HREF=http://info.cern.ch/hypertext/WWW/WhatIs.html>collection</a>
of references on hypertext for more information.
<p>
-----
<p>
(1) Ted Nelson, <i>Computer Lib/Dream Machines,</i> rev. ed. (Tempus
Books of Microsoft Press, Redmond, Washington, 1987), p. 29.
<p>
<address><a HREF=binlist?find+name+winters,joan>Winters</a></address>
<!-- 27 May 93 by Winters Created to clarify the meaning of hypertext in SLAC'
<!-- 28 May 93 by Winters Remove :2784 from html. Obsolete WWW port.-->
<!-- 29 May 93 by Winters Italicize book title.-->
<!-- 4 Aug 93 by Winters Change SLAC link to slacinst.html; add WhatIs.html li
<!-- Retitle and synch Title & h1.-->
<!-- 24 Aug 93 by Winters Change comment tag to SGML one -->

```

SLAC JWD. VM Production Pages. INSTITUT. HTML
02/16/1992

SLAC ARCHIVES COLL 02-072
SERIES 2 SUBSERIES 2
BOX 5 FOLDER 01

```

      d      k
      d      k
      d      k
jj   m m mm   ddd d   eeee   k   k   eeee   n   nnn
j   mm m   m   d   dd   e   e   k   k   e   e   nn   n
j   m   m   m   d   d   eeeee   k   k   eeeee   n   n
j   m   m   m   d   d   e   e   kk   k   e   n   n
j   m   m   m   d   dd   e   e   k   k   e   e   n   n
j   m   m   m   ddd d   eeee   k   k   eeee   n   n
j
j
jjj

```

i				t		i		t			t	
				t				t			t	
ii	n nnn		ssss	ttttt		ii		ttttt	u u		ttttt	
i	nn n	s s		t		i		t	u u		t	
i	n n	ss		t		i		t	u u		t	
i	n n		ss	t		i		t	u u		t	
i	n n	s s		t t		i		t t	u uu		t t	..
iii	n n	ssss		tt		iii		tt	uuu u		tt	..

ff	ll				00000	22222
f f	l				0 0	2 2
f	l				0 00	2
f	l	oooo	r rrr	aaaa	0 0 0	2
ffffff	l	o o	rr r	a	0 0 0	222
f	l	o o	r	aaaaa	0 0 0	2
f	l	o o	r	a a	00 0	2
f	l	o o	r	a aa	0 0	2
f	lll	oooo	r	aaaa a	00000	2222222

Job: institut.html
Date: Tue Jun 30 15:43:02 1998

<TITLE>SLAC SPIRES </TITLE>
<NEXTID 2>
<H1>SPIRES - Institutions Database - Address, phone & fax nos.</H1>
<DL>
<DT><A NAME=0 HREF=http://slacvm.slac.stanford.edu/FIND/Inst<search</A
<DD>Perform search using standard SPIRES terms.
<DT>Help<
<DD>Get help for SPIRES
</DL>

SLAC 44441, VM Production Images. INSTITUTE INDEX
09/23/1994

SLAC ARCHIVES COLL. 22.077
SERIES _____ SUBSERIES 2
BOX _____ FOLDER 2

```

          d
          d
          d
jj      m m mm      ddd d      eeee      k      k      eeee      n nnn
j      mm m m      d dd      e e      k k      e e      nn n
j      m m m      d d      eeeee      k k      eeeee      n n
j      m m m      d d      e      kk k      e      n n
j      m m m      d dd      e e      k k      e e      n n
j      m m m      ddd d      eeee      k k      eeee      n n
j
j
jjj

```

```

i
ii      n nnn      ssss      ttttt      ii      ttttt      u u      ttttt
i      nn n      s s      t      i      t      u u      t
i      n n      ss      t      i      t      u u      t
i      n n      ss      t      i      t      u u      t
i      n n      s s      t t      i      t t      u uu      t t
iii     n n      ssss      tt      iii     tt      uuu u      tt      ..

```

```

ff      ll
f f
f      l
f      l
f      l      oooo      r rrr      aaaa      00000      22222
fffff   l      o o      rr r      a      0 0 0      2
f      l      o o      r      aaaa      0 0 0      222
f      l      o o      r      a      a      00 0      2
f      l      o o      r      a      aa      0 0      2
f      ll      oooo      r      aaaa a      00000      2222222

```

Job: institut.index
Date: Tue Jun 30 13:35:12 1998

<IsIndex>

<TITLE>SLAC SPIRES INSTITUTIONS</TITLE>

<h1>SLAC SPIRES: INSTITUTIONS database search</h1>

<P>

Use standard SPIRES search terms such as FIND, SHOW, EXPLAIN:

<pre>

```
find address desy
find address Chicago
show filesize
explain institutions
```

</pre>

<P>

<P>

Alternatively, use the WHEREIS command:

<pre>

```
whereis desy
whereis ecole normale
whereis south carolina
whereis boskovic
```

</pre>

<P>

See also the HEP-preprints database,
other SPIRES databases,
or the SLAC home page.

<P>

<address>23 Sep 1994 </address>

SLAC WWW, VM Production Pages. INT94.LT.ML
03/31/1994

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i		t	99999	4	h										
		t	9	44	h		t								
		t	9	9	4	4									
ii	n nnn	ttttt	9	9	4	4	h hhh	ttttt	m m mm						
i	nn	n	t	999999	4	4	hh	h	t	mm	m	m			
i	n	n	t	9	4	4	h	h	t	m	m	m			
i	n	n	t	9	44444444		h	h	t	m	m	m			
i	n	n	t	t	9	9	4	..	h	h	t	t	m	m	m
iii	n	n	tt	99999	4	..	h	h	tt	m	m	m			

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ff      ll      00000      22222
f  f    l      0      0      2      2
f      l      0      00     2
f      l      0000      r rrr      aaaa      0      0      0      2
ffffff  l      o      o      rr      r      a      0      0      0      222
f      l      o      o      r      aaaaa      0      0      0      2
f      l      o      o      r      a      a      00      0      2
f      l      o      o      r      a      aa      0      0      2
f      ll      0000      r      aaaa      a      00000      2222222

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Job:  int94.html
Date:  Tue Jun 30 14:27:19 1998
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<title> Research Interests </title>

<h2> Research Interests - Theoretical Physics, SLAC - 1993/1994 </h2>

Work of the Theoretical Physics Group ranges from fundamental theoretical questions to detailed calculations relevant to particular experiments. This mix provides an exciting research environment which continues to attract able postdoctoral researchers as well as more senior visitors from around the world. Recent emphases of the group are summarized in the following paragraphs.

<p>Starting at the more formal end of the theoretical spectrum, work on string theory and conformal field theory continues to be pursued at SLAC but with a different emphasis than in the past. The major focus of this work is the attempt to understand how string theory leads to low energy effective field theories with a physically interesting structure. The nature of the model-independent relationships between parameters of the low energy effective field theory imposed by the fundamental structure has been studied.

<p>Calculations of the experimental consequences of QCD are another major focus. Predictions for many exclusive processes have been obtained. The implications of QCD for coherent nuclear reactions have been explored; these include nuclear effects in QCD, color transparency, shadowing and anti-shadowing, co-mover interactions, anomalous heavy quark and large x phenomenology. New QCD mechanisms for heavy quark production, universal form factor ratios, and the production of relativistic anti-hydrogen are also under investigation. Other related research topics include superstrings, and in particular, superstring-based methods for computing high-order perturbative gauge theory amplitudes in QCD.

<p>The QCD corrections to basic rates for semileptonic decays have been studied and published. At a more fundamental level, the asymptotic nature of the QCD perturbation series has been studied in $R(e+e^- \rightarrow \text{hadrons})$; the coefficients of higher order terms can be estimated and are found to grow rapidly. A new non-perturbative method has been developed, discretized light-cone quantization. This technique permits the calculation of the hadronic mass spectrum, a goal long sought, and hadronic wave functions in gauge theories such as QCD. Application of this method to the heavy quark and gluon components of the proton wave function, and to the weak decays of heavy hadrons have been made and published.

<p>Recent improved measurements of the Z- and W-masses and the Z-width indicate that the top quark mass is heavier than first thought. Several new projects concerning the implications of a heavy top quark, either in processes such as rare K-decays, or on our understanding of dynamical symmetry breaking and mass generation have been undertaken.

<p>Another area of interest for the design and construction of future colliders, both proton and electron-positron machines, is to the study of the relativistic interactions of very small pulses. For electron machines, this study is termed quantum beamstrahlung. Extension of work in this area covered studies of $e+e^-$ pairs produced by beamstrahlung photons, general pulse geometries, and multiple photon emission.

<p>A quite different subject area being studied is in the use of object oriented programming techniques in simulation problems in physics; in particular, Monte Carlo simulations of particle production and

decay in high energy collisions have been developed as well as simulations of low dimension quantum systems. Other applications are also being pursued, most involving problems of interest in analysis of data.

<p>Preliminary work on detector design and as well as the organization of a working-group, has been initiated in support of an SSC experiment featuring a full-acceptance detector (FAD). Physics topics for the FAD which are being developed include (1) jets plus rapidity-gaps as a signature for new physics, (2) study of the QCD prediction that the quark-quark force becomes strong at large values of cms energy, even when the distance scale is very small, (3) leading-particle physics and its connection to cosmic-ray phenomenology, and (4) ultralow-p t-physics as a probe of properties of the chiral QCD vacuum.

<h2> Future Plans </h2>

The work described above will be extended into the coming year. In addition, new work has begun on the application of calculations techniques derived from string theory to perturbative analysis of gauge theories, particularly QCD. More formal topics in conformal field theory and a proof that the topological symmetry cannot break dynamically or spontaneously in the quantum theory of the topological particle will be undertaken.

<p>Calculations relevant to preliminary studies of possible future experimental directions at SLAC have also occupied a number of physicists. These include limits on a light boson coupling only to leptons that could be obtained at PEGASYS, a study of signatures for charged Higgs or right handed W's in tau-decays, Z0-polarization effects in B-tagging, and signatures and luminosity needed to study CP-violation in B-decays. Work in progress includes a review of B-physics and a detailed study of expected behavior in e+e- annihilation at the top-quark threshold. A more general density matrix formulation of final state particle mixing has been developed for use in describing B-meson and D-meson mixing, which has the possibility of detecting CP violation and of measuring its properties. Light cone quantization methods will be applied to the bound state spectrum and resonance spectrum of QCD. The work on object oriented programming will be extended, concentrating on data analysis algorithms; of particular interest is the statistical mechanics of track reconstruction.

<h2> Theory Efforts </h2>

The theoretical physicists at SLAC are involved in basic research, supervising graduate thesis' and teaching in the classroom. The SLAC theory effort maintains a close contact with SLAC experiments and experimenters as well as a strong interests in fundamental theories. Many theorists are trained or continue their training at SLAC, as graduate students and as research associates. Senior theorists often visit here for extended periods.

<p>Theoretical physics research at SLAC ranges from the very basic questions of particle physics to detailed experimental predictions. The group is heavily involved in exploring the physics that can be studied by new facilities such as the SLD with polarized e+e- beams, deep inelastic scattering with polarized electrons, possible experiments at the B meson factory, and physics opportunities at future linear colliders.

<p>

A major interest of the group is the study of the Standard Model and its predictions relevant to present and future experiments. A variety of topics are under investigation: a detailed study of the physics of Z0 production and decay in polarized electron-positron annihilation; the examination of CP violation in decays; the quantum chromodynamics of exclusive hadron reactions and hadronic jet production; and research on the phenomenology of weak decays.

Other research topics include: unified field theories, superstrings, superstring-based methods for computing high-order perturbative gauge theory amplitudes, quantum gravity, alternative symmetry schemes for quark and gluons, the phenomenology of electron-positron collisions at TeV energies, basic theory of collider interactions- especially the study of relativistic interactions of very small bunches, few-body problems, fundamental quantum measurement theory, and novel numerical simulation methods for physics problems. Also of interest is the study of rapidity distributions and what can be learned from them.

Interest extends outside particle physics to, for example, the detailed predictions of quantum chromodynamics in nuclear physics, the ramifications of possible new particle types in cosmology, and studies of new mathematical/computer techniques for simulation problems in theoretical physics.

[Sharon Jensen](#)

SLAC 10003 VM Production Pages. INTERNET. HTML
09/06/1994

SLAC ARCHIVES COLL CC-012
SERIES 2 SUBSERIES 2
FOLDER 64

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          d
          d
jj  m m mm   ddd d   eeee   k   k   eeee   n nnn
j   mm m m   d  dd   e    e   k  k   e    e   nn  n
j   m m m m   d  d   eeeee   k k   eeeee   n    n
j   m m m m   d  d   e    e   kk k   e    e   n    n
j   m m m m   d  dd   e    e   k  k   e    e   n    n
j   m m m m   ddd d   eeee   k    k   eeee   n    n
j
j
j
jjj

```

```

i
ii  n nnn   t      t      eeee   r rrr   n nnn   eeee   t
i   nn  n   t      t      e    e   rr  r   nn  n   e    e   t
i   n    n   t      t      eeeee   r      n    n   eeeee   t
i   n    n   t      t      e    e   r      n    n   e      t
i   n    n   t  t   t      e    e   r      n    n   e    e   t  t
iii n    n   tt      eeee   r      n    n   eeee   tt      ..

```

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ff      ll
f  f    l
f      l
f      l
fffff   l      oooo   r rrr   aaaa   00000   22222
f      l      o    o   rr  r   a      0    0   2    2
f      l      o    o   r      aaaa   0  0  00   222
f      l      o    o   r      a    a   00    0   2
f      l      o    o   r      a    aa  0    0   2
f      ll      oooo   r      aaaa a   00000   2222222

```

Job: internet.html
Date: Tue Jun 30 13:45:19 1998

<title>Introduction to the Internet</title>

<h1>Introduction to the Internet</h1>

<address>SLAC 6 Sep 1994 </address>

<p>

This panel is under re-construction.

<p>

The Internet has become the primary computer network used at SLAC for national and international communication. The Internet is a collection of networks that presently use the

TCP/IP

(not OSI)

protocol suite and operate as one cooperative, virtual network.

It has recently grown rapidly across much of the world and is presently found in over forty countries. Interesting Internet networks

include NSFNET ,

ESnet ,

BARRNet ,

SUNET ,

and MILNET .

The Internet has gateways to other, non-TCP/IP networks like

BITNET .

<p>

Each Internet network establishes its own usage rules and Network Operations Center (NOC). Internet hosts may be in universities, research labs, schools, commercial organizations, military installations, individual's homes, etc. Policy and standards (called RFCs), for the connected Internet and the TCP/IP protocol suite are set by the IAB .

The Internet is descended from the

ARPANET ,

which operated from

1969-1990.

Today, even much BITNET traffic flows over the Internet (via protocol layering).

<p>

In addition to connectivity, the Internet provides a number of applications like e-mail and Netnews , all based on the unreliable packet and reliable full-duplex stream delivery capabilities of the network.

Over the years, not only has a rich set of applications evolved (many through volunteer labor), but also etiquette for using them. Permeating the Internet is a sense of ethics that honors individualism, accepts the network as good, and assumes the importance of protecting it. By now a humongous amount of information on almost any subject you can name is available in diverse formats.

<p>

<h2>Getting started</h2>

Given the complexity of the environment, reading a book is a good way to begin. Popular ones include:

<p>

<cite>

Krol, Ed, 1992. <i>The Whole Internet: User's Guide and Catalog</i> (O'Reilly & Associates, Inc., Sebastopol, CA).

</cite>

SLAC Library has. More comprehensive than most; still easy to follow. The publisher has put some parts online in their

Global Network Navigator:

[What Is the Internet?](http://www.digital.com/gnn/meta/internet/res/help/twi.ch02.html) and
[The Whole Internet Catalog](http://nearnet.gnn.com/wic/newrescat.toc.html)
 See also the GNN
[Help Desk](http://www.digital.com/gnn/meta/internet/res/help/index.html)
 But note unusual
[subscription restrictions](http://www.digital.com/gnn/wel/welcome.html#terms)

LaQuey, Tracey, 1993.
Internet Companion: A Beginner's Guide to Global Networking
 (Addison-Wesley).

SLAC Library has.
 An easy way to get started.

Other information resources to look at early, where the phrase on the left is a name by which the file is known, include:

- [connectivity_table](ftp://ftp.cs.wisc.edu/connectivity_table/version_8.map.color.ps)
 A map of the international connectivity provided today by common computer networks, with additional
[specifics](ftp://ftp.cs.wisc.edu/connectivity_table/version_8.ps) by country.
- [51 Reasons](gopher://gopher.cni.org:70/11/cniftp/miscdocs/farnet)
 Success stories submitted to FARNET for a forthcoming book, "51 Reasons: How We Use the Internet and What It Says about the Information Superhighway."
 (FARNET is the Federation of American Research Networks.)
- [Email-Addresses](http://www.slac.stanford.edu/usr/local/doc/intro/Email-Addresses)
 Introduction to Internet electronic addresses and domain names.
- [INTERNET GUIDE](internet.guide)
 Statement of policy on the proper use of Internet resources.

Internet overview

Here are a few useful information sources on the network, extracted from an endless list.
 The phrase on the left is a name the information is known by.

- [books/unix](ftp://rtfm.mit.edu/pub/usenet/news.answers/books/unix)
[FAQ](SlacSpeak?find+term+FAQ)
 including annotated bibliography on Internet books for various interests in Section D., "Networking and Communications."
- [list](http://slacvx.slac.stanford.edu/misc/internet-services.html)
 The hypertext form of a FAQ called the Internet Services List that treats Internet connections to diverse resources from Agricultural Information to WorldWideWeb. See also the related
[and newsgroup,](ftp://rtfm.mit.edu/pub/usenet/news.answers/internet-services/faq)
[alt.internet.services](news:alt.internet.services).

Will this be maintained ??

[n](http://www.cis.ohio-state.edu/hypertext/faq/usenet/FAQ-List.html)

<dd>The
Netnews
newsgroup with the definitive set of
USENET
FAQs.
Covers diverse subjects.
A good place to start is
<!-- Experiment on remote vs. local access for top of tree ?? -->
<
See also the FAQs for new Netnews users,
<tt>new
<
<dt>X.500
<dd>X.500 Directory Service ("white pages"), an ISO/CCITT international
standard. Obtained through a WWW gateway.
<dt>
gopher
<dd>The original
Gopher
client/server at the University of Minnesota,
for browsing through menus of resources at hundreds of Internet sites.
(See
<a HREF="http://www.cis.ohio-state.edu/hypertext/faq/usenet/gopher-faq/faq.html"
<dt>
<a HREF="gopher://gopher.tc.umn.edu/11/Other%20Gopher%20and%20Information%20Serv
<dd>A Gopher-based
service that provides keyword searches of a database of
(most) all the Gopher menus on the Internet.
<dt>ArchiePlex
<dd> A list of hypertext
Archie
servers around the world, which are accessible to WWW.
Unlike other Archie servers,
ArchiePlex
ones return hypertext links to the located files.
Much freeware
can be found through Archie.
<dt>WAIS
<dd>The experimental Wide Area Information System, through which you can
perform textual searches of one or more WAIS indices anywhere on the
network and retrieval of the documents or other material found. (See the
<a HREF="http://www.cis.ohio-state.edu/hypertext/faq/usenet/wais-faq/getting-sta
<dt>
DataSources/ByAccess
<dd>A list of network information sources classified by type of service
like X.500, Gopher, Archie, or WAIS.
<dt>
COUNTRY CODES
<dd>List based on the ISO 3166 standard for country names and their
codes, e.g., CH for Switzerland and CN for China.
<dt>
NSFNET NET_USE
<dd>Acceptable usage policy for NSFNET backbone services.
<dt>InterNIC
<dd>Information, Directory and Data Base, and
Registration Services provided and/or coordinated
by the InterNIC to the Internet community.
To find information available on the Internet, see the
InfoGuide.
Or check out the weekly

[Scout Report](http://www.internic.net/scout-report/)
 on new resource announcements and other news.

- <dt>[ESnet](http://www.es.net/)
 <dd>Description of the DOE's ESnet, its activities, and other information of interest to energy researchers.
- <dt>[BARRNet](gopher://nicl.barrnet.net/)
 <dd>Description of BARRNet plus related information and data files.
- <dt>[Inter](http://www.cis.ohio-state.edu/hypertext/information/rfc.html)
 <dd>The documents that define the Internet, with some overview ones highlighted. (See ESnet for the
[latest ones](http://www.es.net/html-stuff/rfcs.html))
- <dt>[Internet Society](http://info.isoc.org)
 <dd>Description of the Internet Society (ISOC), the international group for global cooperation and coordination that ultimately works out where the Internet is going through committees like the
[IAB](Slacspeak?find+term+iab)
 and its subcommittees, the
[IETF](Slacspeak?find+term+ietf) and the
[IRTF](Slacspeak?find+term+irtf).
 See the
[ISOC Gopher](gopher://gopher.isoc.org/11/isoc/)
 for more information, or
[join](ftp://ftp.isoc.org/isoc/membership/individual-member-join.txt)
- <dt>[Resource Guides](gopher://una.hh.lib.umich.edu:70/11/inetdirs)
 <dd>The University of Michigan's Clearinghouse of Subject-Oriented Internet Reso
- <dt>[Miscellaneous](http://www.cis.ohio-state.edu/hypertext/information/information.htm)
 <dd>Ohio State's list of "Miscellaneous Information Sources" on the Internet.
- <dt>[Domain Survey](http://www.nw.com/zone/WWW/top.html)
 <dd>[Network Wizards](http://www.nw.com/)'
 survey of Internet domain names with links to statistics from other organizations.

</dl>

Basic commands</h2> Some useful commands follow (ones without hypertext links await installation of a local man page server): <p> - <dl compact> - <dt>elm <dd>invokes an interactive, screen-oriented mail system for doing tasks like reading, writing, and filing mail. UNIX(TM) only. - <dt>[finger](http://www.cis.ohio-state.edu/man/sunos/finger.1.html) <dd>displays identifying information about one or more users. - <dt>[ftp](http://www.cis.ohio-state.edu/man/sunos/ftp.1c.html) <dd>transfers files between a local and remote host that may have dissimilar file systems. Uses the relatively rich FTP protocol. - <dt>netstat <dd>shows network status. - <dt>nslookup <dd>queries Internet domain name servers interactively or not. - <dt>ping <dd>requests echo from foreign host to check the status of the connection. - <dt>[telnet](http://www.cis.ohio-state.edu/man/sunos/telnet.1c.html) <dd>supports login from a local to a remote host. - <dt>[tftp](http://www.cis.ohio-state.edu/man/sunos/tftp.1c.html) <dd>transfers files between a local and remote host that may have dissimilar files systems. Uses the minimal TFTP protocol.

```

<dt>trn
<dd>reads Netnews newgroups efficiently and in a "threaded" order
(interconnected in reply order).  Linemode.  UNIX only.
<dt>web
<dd>invokes the <a HREF="slac.html">WorldWideWeb</a>
(WWW) hypertext system to find and access Internet resources.
<dt><a HREF="http://www.cis.ohio-state.edu/man/sunos/whois.1.html">whois</a>
<dd>searches a user name directory for identifying information about
a name.
<dt>xrn
<dd>provides an X Window System interface for reading Netnews
newsgroups.  UNIX only.
</dl>

```

Detailed information on these commands is usually available on your host. Enter the appropriate help command, e.g., "man <command_name>" on UNIX or "HELP <command_name>" on VM, where you replace <command_name> with the name of the command you're interested in.

Other Sources of Information

You may also find reference documents about the Internet and various other international networks and their usage on the Consulting Reference Shelf in the Lobby of the Computation Group Building (CGB) and, of course, in the SLAC Library. Here's a taste of its holdings on the

[Internet](books?find+title+internet).

Sooner or later, though, the best way to learn about the Internet is to explore it.

```

<p>
<hr>
<address><a HREF="binlist?find+name+winters,joan">Winters</a></address>
<!-- 21 May 93 by Winters Change to &lt;command_name>;
symbolic refs.  Move archie link to NeXor.  Update books.unix name.
Update link to now-installed Email-Addresses file.  -->
<!-- 27 May 93 by Winters  Add Netnews to intro, Gopher to Overview,
freeware to Archie, reorder Overview, & tune syntax.  -->
<!-- 28 May 93 by Winters  Add "cite" and "i" tags.  -->
<!-- 7 Jun 93 by Winters  Add link to network info sources by type -->
<!-- 14 Jun 93 by Winters Change Warchie link & text to ArchiePlex -->
<!-- 22 Jun 93 by Winters Rename internet-services to .../list like Archive-name
<!-- 22 Jun 93 by Winters Add International Connectivity map (RAC found).  -->
<!-- 22 Jun 93 by Winters Update BARRNET link.  -->
<!-- 4 Aug 93 by Winters Synch Title and H1; link to slacinst.html -->
<!-- 6 Aug 93 by Winters Change to BARRNet as per Stanford spelling, add Veroni
<!-- 9 Aug 93 by Winters Update BARRNet gopher link ~as per BARRNet -->
<!-- 24 Aug 93 by Winters Change comment tag to SGML one; delete extra end ancho
<!-- 26 Aug 93 by Winters Try to make more robust (delete :80 port refs, lower c
<!-- 6 Oct 93 by Winters Add DNN Krol, Home Page, and Terms links; hr tag -->
<!-- 8 Oct 93 by Winters Move from VM to ISOC Gopher and update; add link to Pr
<!-- 11 Oct 93 by Winters Delete Kehoe's Zen for LaQuey's Companion -->
<!-- 13 Oct 93 by Winters Try to fix main [long] ISOC link again; failed -->
<!-- 13 Oct 93 by Winters Upd books-unix link to jupiter, Inet list to FAQ; add
<!-- 13 Oct 93 by Winters Break ISOC link explicitly to reduce side effects -->
<!-- 14 Oct 93 by Winters Remove explicit default ports (FTP 21, Gopher 70 for b
<!-- 14 Oct 93 by Winters Upd 2 ISOC links (path name simplified) and edit; add
<!-- 22 Oct 93 by Winters Add link to SPIRES BOOKS for Internet search; put stan
<!-- 23 Oct 93 by Winters Change link to news.answers to Ohio State -->
<!-- 18 Nov 93 by Winters Server from jupiter to www; format upd for xmosaic; "
<!-- 23 Dec 93 by Winters Move Internet Services List back to updated slacvx hyp
<!-- update ArchiePlex link and add background link; add WAIS links; upd relat

```

```
<!-- delete CRUISE HTML link (WWW takes its place, and much more) -->
<!-- add UMich's Clearinghouse of Subject-Oriented Internet Resource Guides -
<!-- 7 Jan 94 by Winters Add Gopher FAQ link; iterate FAQ, Archie, and UMich,
<!-- move link from SRI (gone) to ESnet for current RFCs -->
<!-- 1 Mar 94 by Winters Upd X.500 link to ESnet's WWW gateway re JXH -->
<!-- 18 Apr 94 by Winters Upd 3 ORA links, add Help Desk one, edit; add FARNET
<!-- add InterNIC item re JXH; add ESnet item. -->
<!-- 15 Aug 94 by Winters Change 4 links from nearnet to www.digital mirror fo
<!-- note 5th link to Whole Internet Cat apparently not mirrored; -->
<!-- upd main ISOC item to link to their new WWW Home Page, upd text -->
<!-- 22 Aug 94 by Winters Upd ISOC Gopher and joining links (cheating for now:
<!-- add ISOC comment for 15 Aug...; add InterNIC Scout Report link re R/
<!-- add Network Wizards' Domain Survey item re RAC; add trailing / to Ir
<!-- 6 Sep 94 by Winters Upd broken ISOC Gopher link and fix . typo; -->
<!-- upd InterNIC item, adding InfoGuide link re RAC -->
```