

# Particle-Physics Computing and Analysis

Wed 02-Jun-2021 Bill Seligman

T0 = After lunch (1:30PM or when everyone's on Zoom)

- **T0:** Particle-physics computer resources at Nevis
- **T0 + 15 min:** ROOT - What is it? Why do we use it?
- **T0 + 30 min ➤ 4PM:** Hands-on ROOT Course, day 1
- **4PM:** NSF-required ethics class

# Particle-Physics Computing and Analysis

Thu 03-Jun-2021

$T1 = 9:30\text{AM}$  or when everyone's in the Zoom room

- $T1$ : Concepts in batch processing
- $T1 + \Delta T \blacktriangleright \text{noon}$ : Hands-on ROOT study continues

$T2 = 1:30\text{PM}$  or when everyone's in the Zoom room

- $T2$ : Your choice of talks (see next slide)
- $T2 + \Delta T \blacktriangleright 4\text{PM}$  (or up to 5PM if folks want to work):  
Hands-on ROOT study continues

# Particle-Physics Computing and Analysis

Fri 04-Jun-2021

T3 = 9:30AM or when everyone's in the Zoom room

- T3: The other choice of talks, if:
  - Anyone is there
  - Everyone is interested
- T3 +  $\Delta T$  ► noon: Hands-on ROOT study continues

Your choice = I've prepared two little talks. I'll give one on Thu (your choice) and maybe on on Fri (the other choice).

- The physicists' slang guide to statistics
- A fast way to analyze in ROOT (plus speed up code)

# Who am I?

## (Systems administration)

Bill Seligman

**[seligman@nevis.columbia.edu](mailto:seligman@nevis.columbia.edu)**

Office phone: 1-914-591-2823 (but email is the best way to reach me)  
Room 116 (in non-pandemic eras)

Will cheerfully answer questions on:

Unix (& Mac) / security / software / networking

Will grumpily complain about questions on:

Windows / hardware

You can find more information about me (too much!) on my web site,  
which I'll leave for you to discover.

Social media:

FB = Nevis Laboratories

Twitter = @NevisLabs

Instagram = nevislaboratories

YouTube = *search for* #ScienceOnHudson

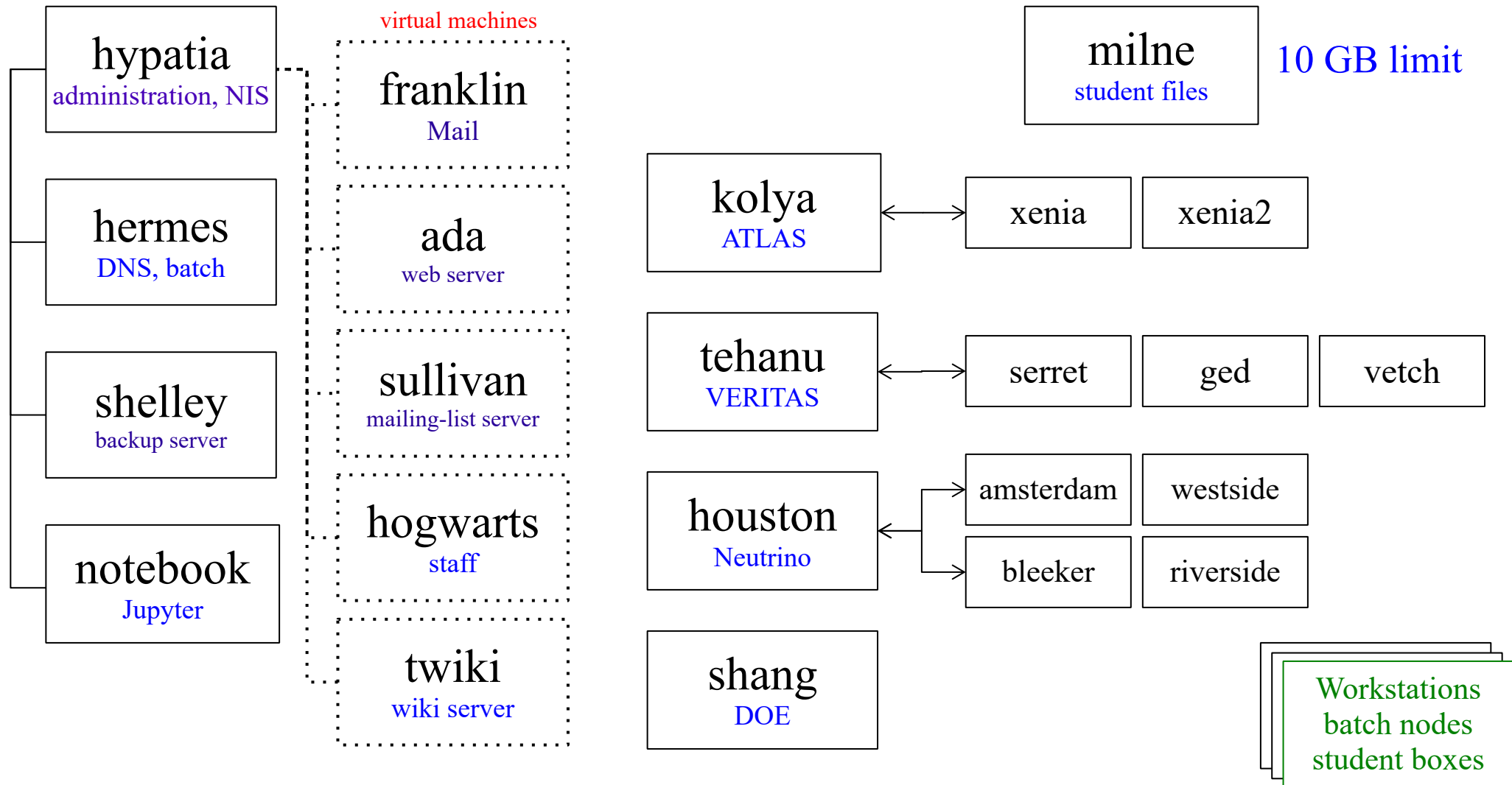
# Particle-Physics Computer Systems

## Linux Cluster

### Administrative servers

### Workgroup/Login servers

### File servers



<<http://www.nevis.columbia.edu/linux/>>

<<http://www.nevis.columbia.edu/linux/cluster-names.html>>

# Particle-Physics Computer Network

## VPN

The particle-physics network (including the research building and the electronics building) is protected by a firewall. Many of the computer systems (especially those associated with electronics design and testing) are inaccessible from the outside world without using VPN.

<https://twiki.nevis.columbia.edu/twiki/bin/view/Main/VPN>

Your supervisor will (hopefully) let you know if you have to use VPN for your work. This means installing Cisco AnyConnect on your laptop, which you can download from:

<https://vpn.nevis.columbia.edu>

Note that Nevis VPN is *not* set up for anonymous Internet access. They'll know who you are (for some arbitrary definition of *they*).

# Particle-Physics Computer Systems

## Printers

**bw-research:** Black and white, high-speed, duplex  
Location: near building entrance

**color-research:** Color, duplex  
Location: near building entrance

**bw-admin:** Black and white  
Location: far end of west hall

**bw-elec &  
bw-design:** Black and white, high-speed  
Location: electronics building

### Typical printer commands:

To print black and white on plain paper:  
`lpr -Pbw-research document.ps`

To print in color :  
`lpr -Pcolor-research filename`

For more information, see:

<<http://www.nevis.columbia.edu/software/printing.html>>

# Particle-Physics Web Sites

Nevis Home Page:

<<https://www.nevis.columbia.edu/>>

Computing Pages (home->wiki):

<<https://twiki.nevis.columbia.edu/twiki/bin/view/Nevis/Computing>>

Linux Cluster Pages (home->wiki->computing):

<<https://twiki.nevis.columbia.edu/twiki/bin/view/Nevis/LinuxCluster>>

System News (home->wiki->computing):

<<https://listserv.nevis.columbia.edu/pipermail/nevis-linux/>>

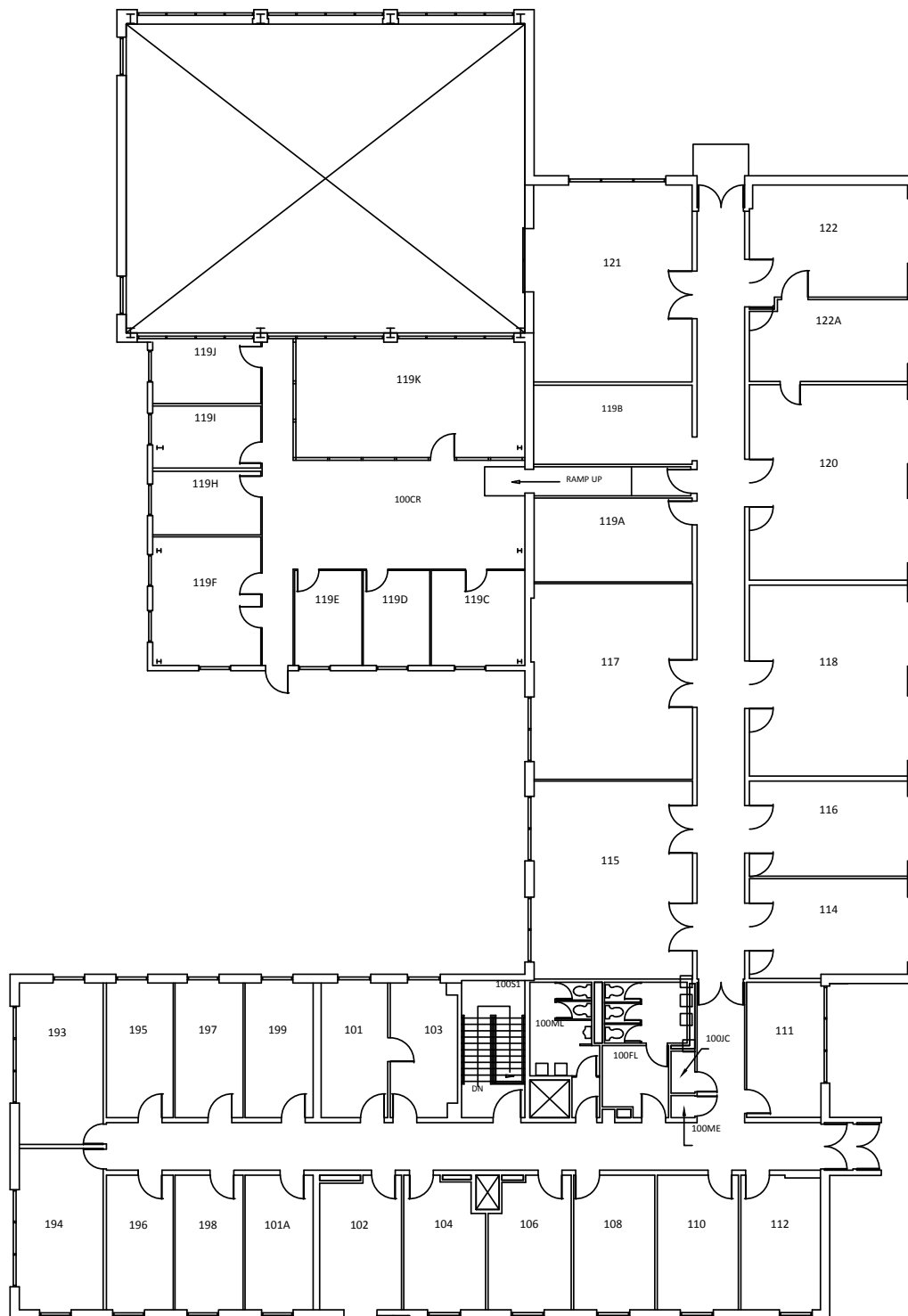
I try to keep these pages up-to-date. If there are problems,  
let me know -- but please be forgiving!

And now...

A waste of three  
minutes



Nevis Labs  
Columbia University



RESEARCH BUILDING  
100 LEVEL