Particle-Physics Computing and Analysis

Wed 28-May-2025

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 ➤ end-of-day - Hands-on ROOT study

Thu 29-May-2025

T1 = 10:30AM or when everyone's on Zoom after Prof. Mukherjee's talk on the Standard Model

- T1 ➤ lunchtime: Hands-on ROOT study continues

Particle-Physics Computing and Analysis

Thu 29-May-2025

T2 = After lunch (1:30PM or when folks are on Zoom)

- T2: Using git
- T2 + ΔT = Hands-on ROOT study continue

Fri 30-May-2025

T3 = 9:30AM

- T3 = Tips on improving code
- T3 + ΔT ➤ 12:30PM: I'll have the Zoom room open. If anyone joins me, I'm available to answer questions.

Who am I?
(Systems administration)

Bill Seligman

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

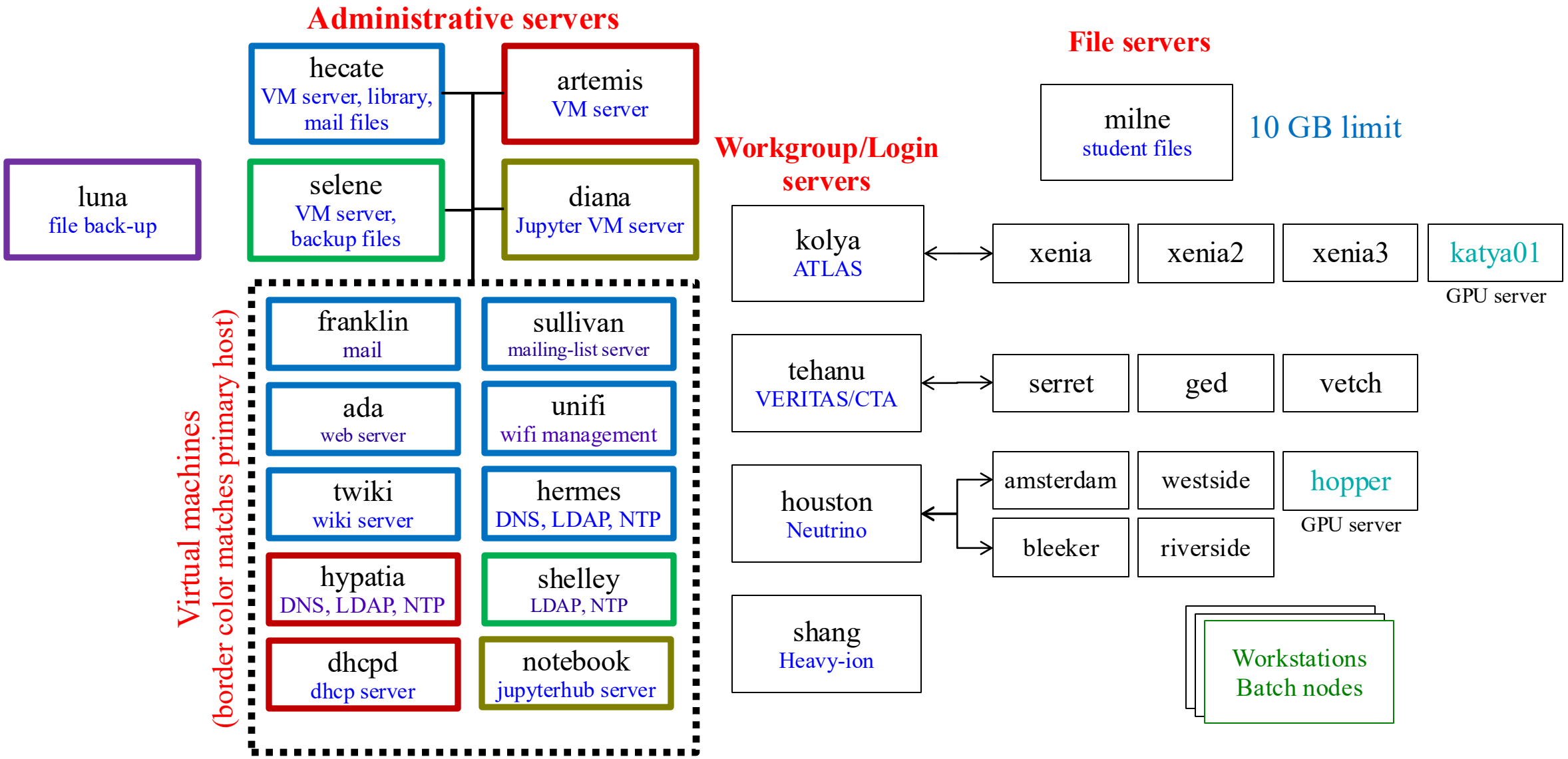
You can find more information about me (too much!) on my web site, which I'll leave for you to discover.

Nevis' social media: BlueSky = @nevis.columbia.edu
Mastodon = @mastodon.social@nevislabs
YouTube = *search for* #ScienceOnHudson

Particle-Physics Computer Systems

Linux Analysis Cluster

All the systems listed on this slide run AlmaLinux 9.5. Our choice of operating system is what CERN and Fermilab use. As they go, so do we.



https://twiki.nevis.columbia.edu/twiki/bin/view/Main/LinuxCluster
https://twiki.nevis.columbia.edu/twiki/bin/view/Main/ListOfMachines

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 Secure Client on your laptop, which you can download from the above web page.

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-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:
https://twiki.nevis.columbia.edu/twiki/bin/view/Main/Printing

Particle-Physics Web Sites

Nevis Home Page:
https://nevis.columbia.edu/

Computing Pages (home->wiki):
https://twiki.nevis.columbia.edu/twiki/bin/view/Nevis/Computing

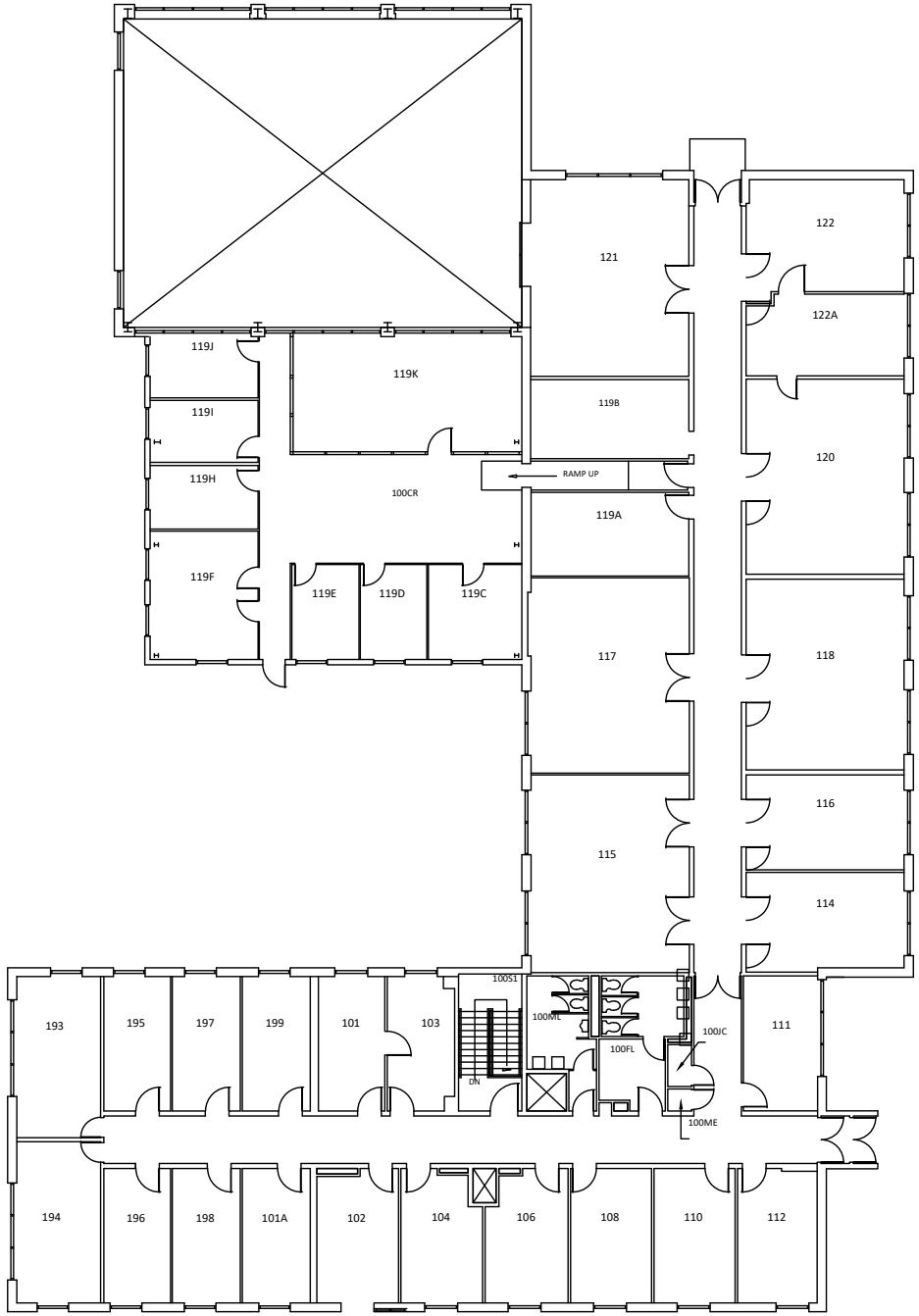
Linux Cluster Pages (home->wiki->computing):
https:/twiki.nevis.columbia.edu/twiki/bin/view/Nevis/LinuxCluster

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