Performance Evaluation of GPU-accelerated HPC and AI applications using HPCToolkit, TAU, and ParaTools Pro for E4S™

Sameer Shende

Research Professor, University of Oregon

President and Director

ParaTools, Inc.

Presentation at EnergyHPC conference, Rice U., Houston

February 27, 2025

https://tinyurl.com/e4stut

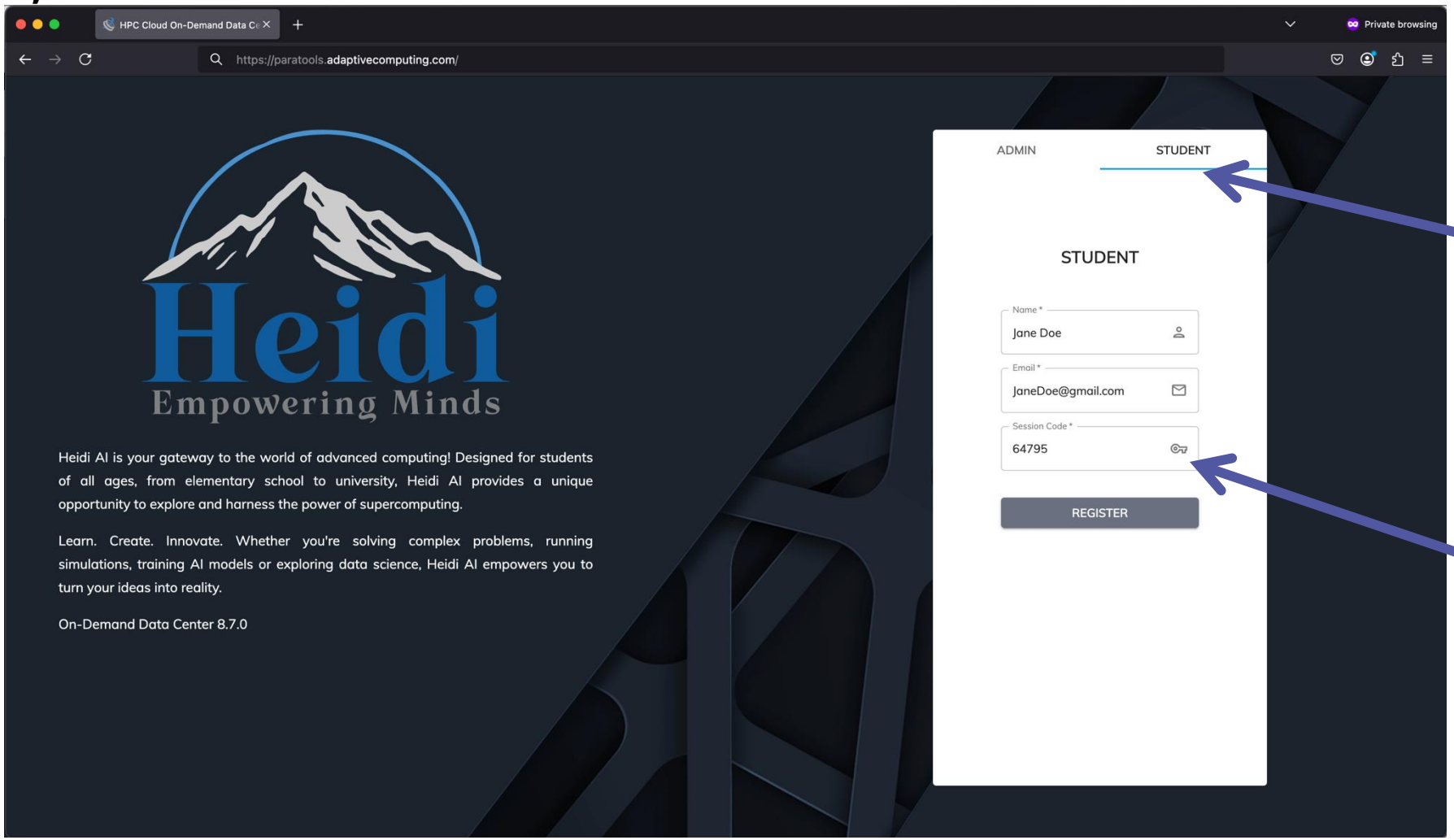
U.S. DEPARTMENT OF ENERGY | Office of Science

Using Adaptive Computing's Heidi Workshops (aka ODDC)

Go to https://tinyurl.com/e4stut for slides

STEP 1: Click on Students tab at:
https://paratools.adaptivecomputing.com
Firefox recommended.

Adaptive Computing's Heidi: Go to STUDENT tab and enter Name, Email and enter the session code 64795



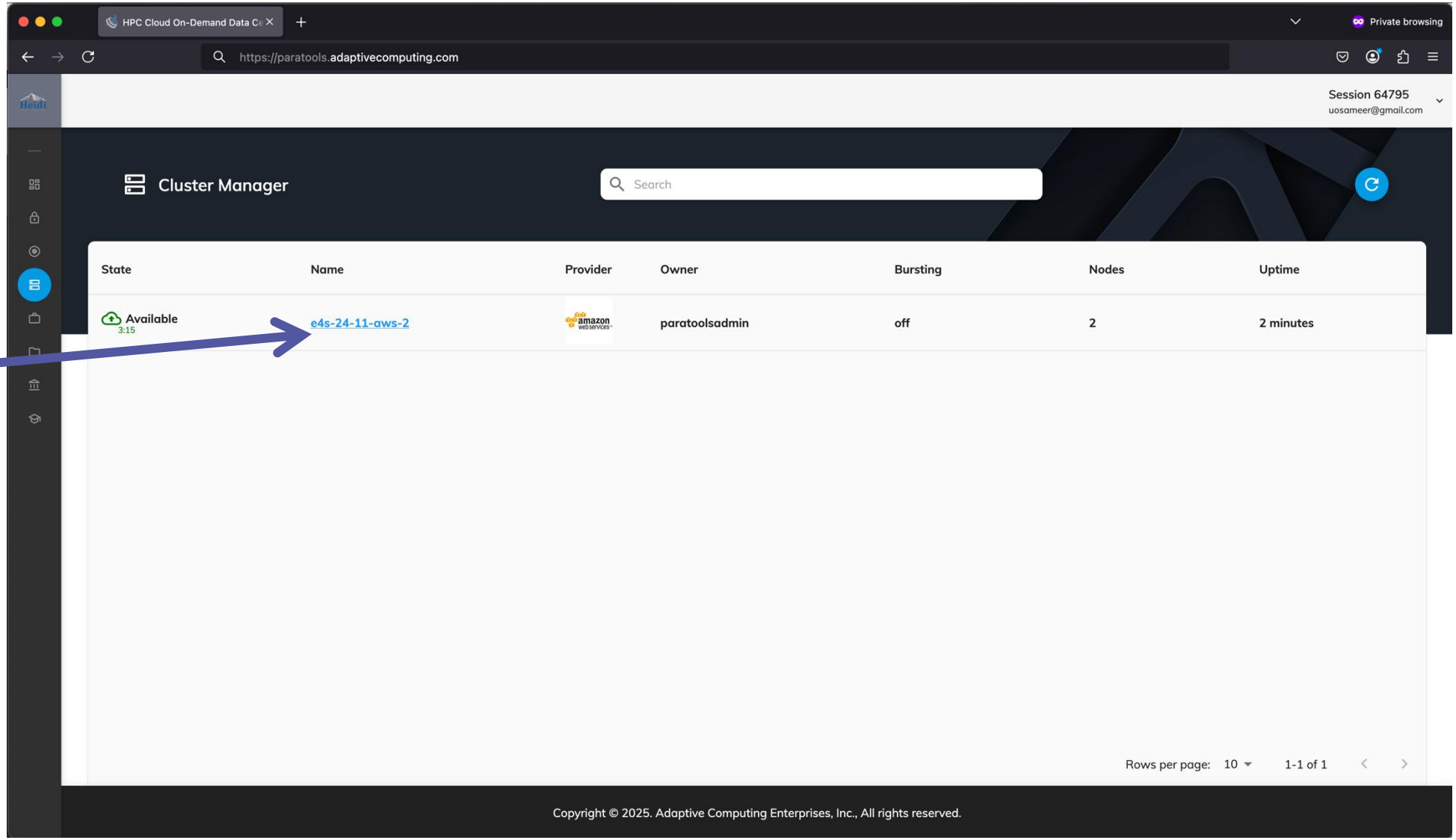
Click on Student tab

Enter name, email And **64795** session code

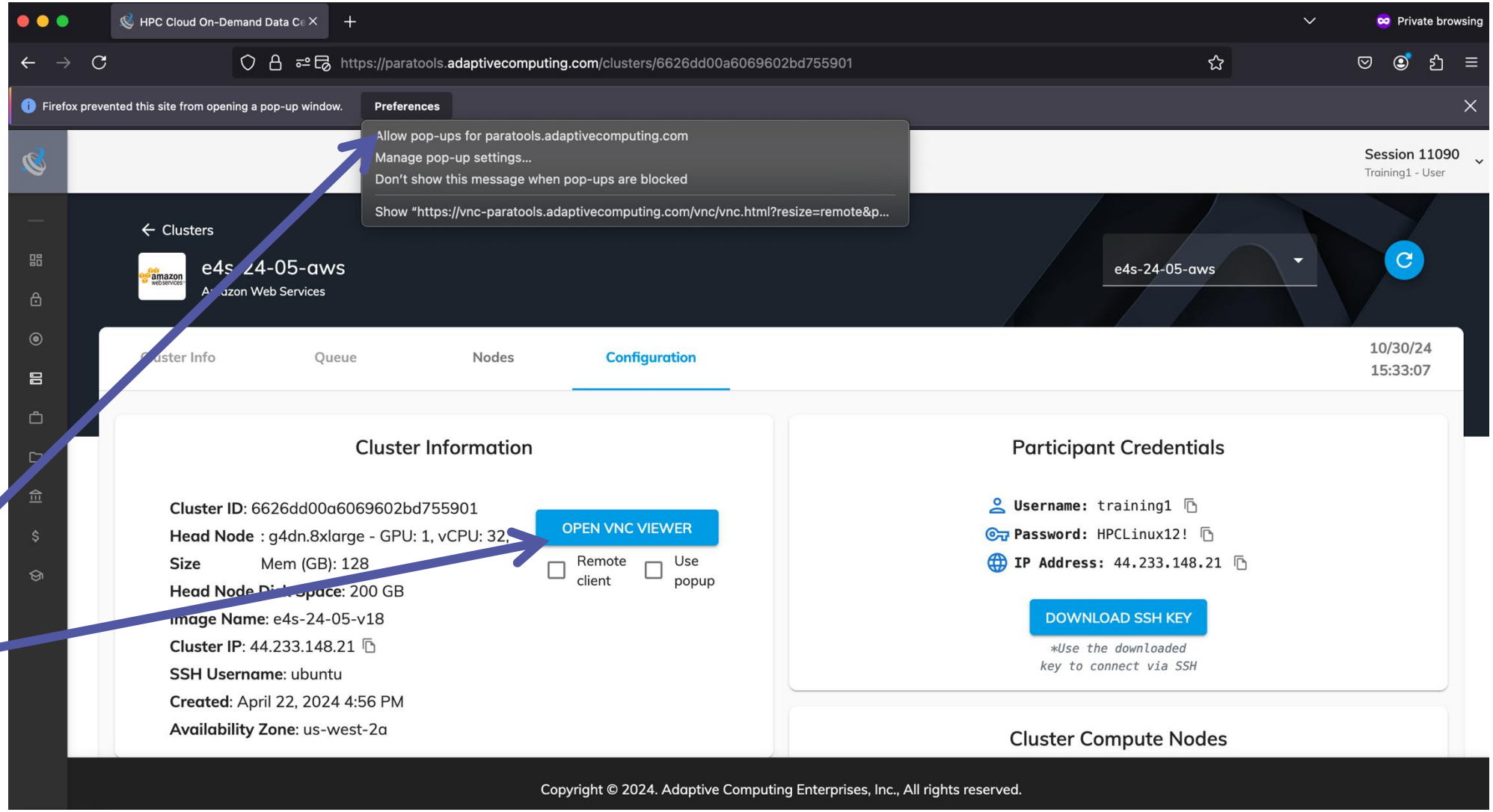
https://tinyurl.com/e4stut. https://paratools.adaptivecomputing.com

Launch VNC Viewer from Heidi’s Configuration Tab

Click here

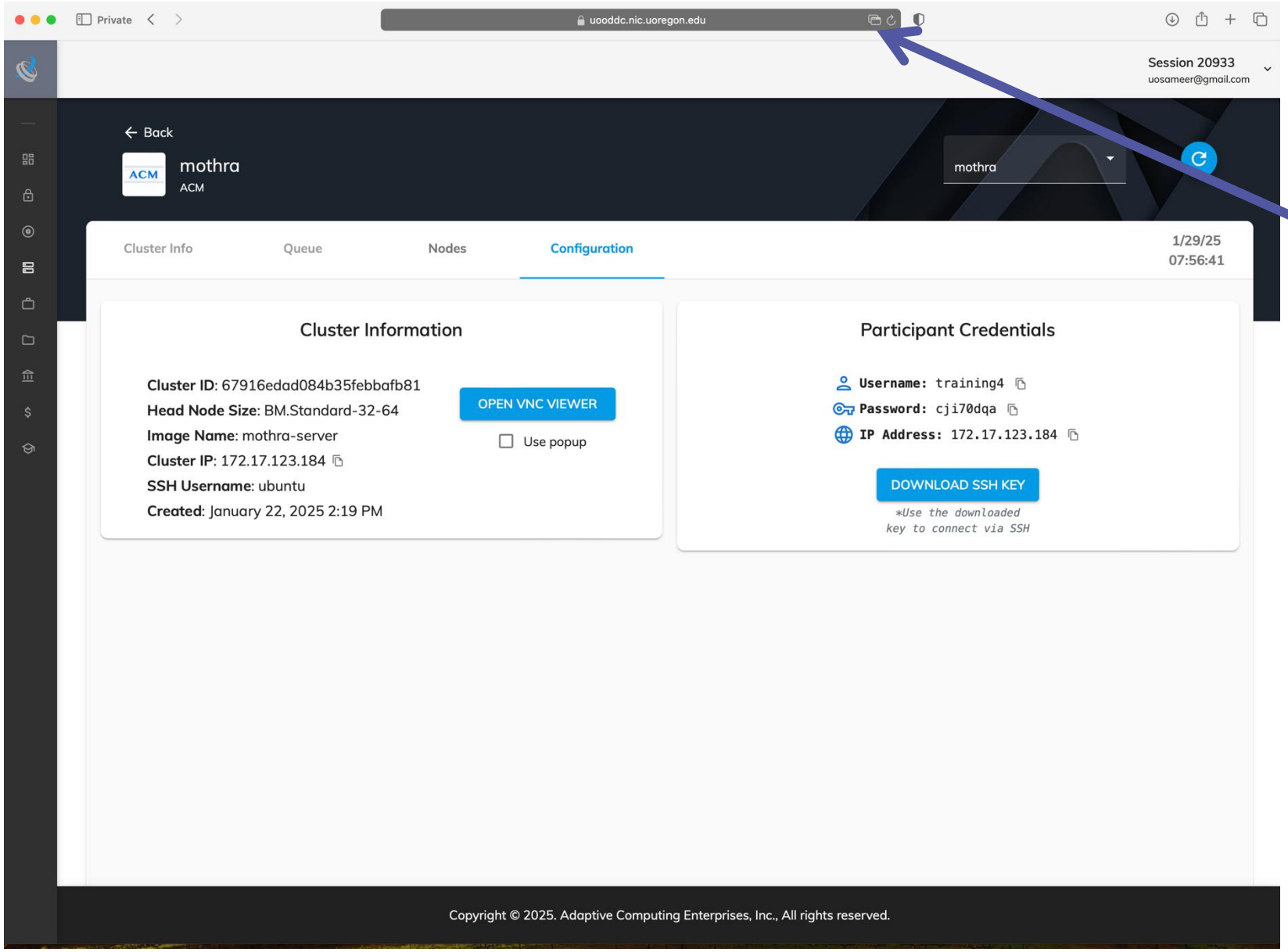


Launch VNC Viewer from ODDC and allow popups



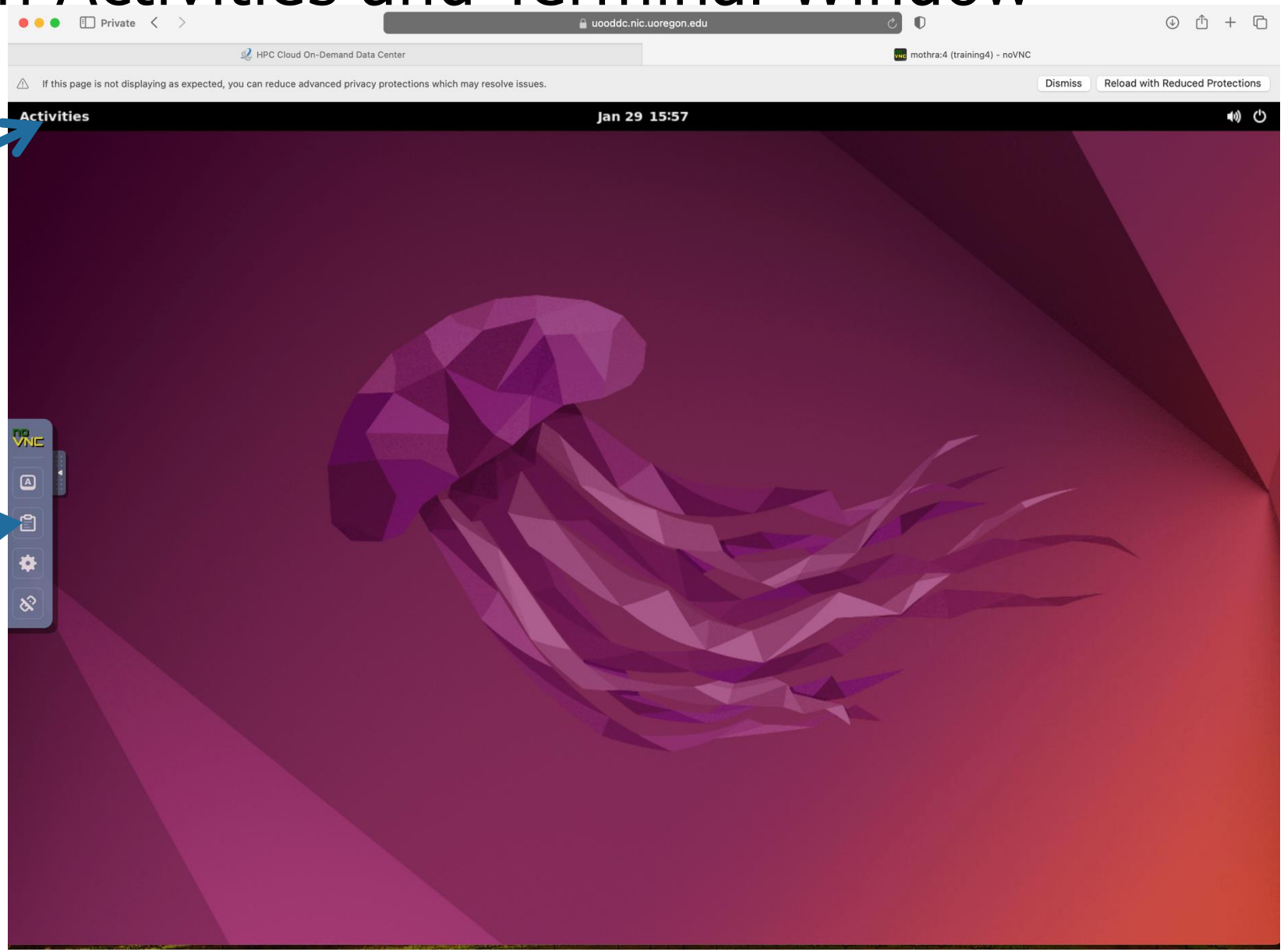
Click here

Allow Popups by clicking on popup window in Safari



Click here to open popup window in Safari

Launch Activities and Terminal Window

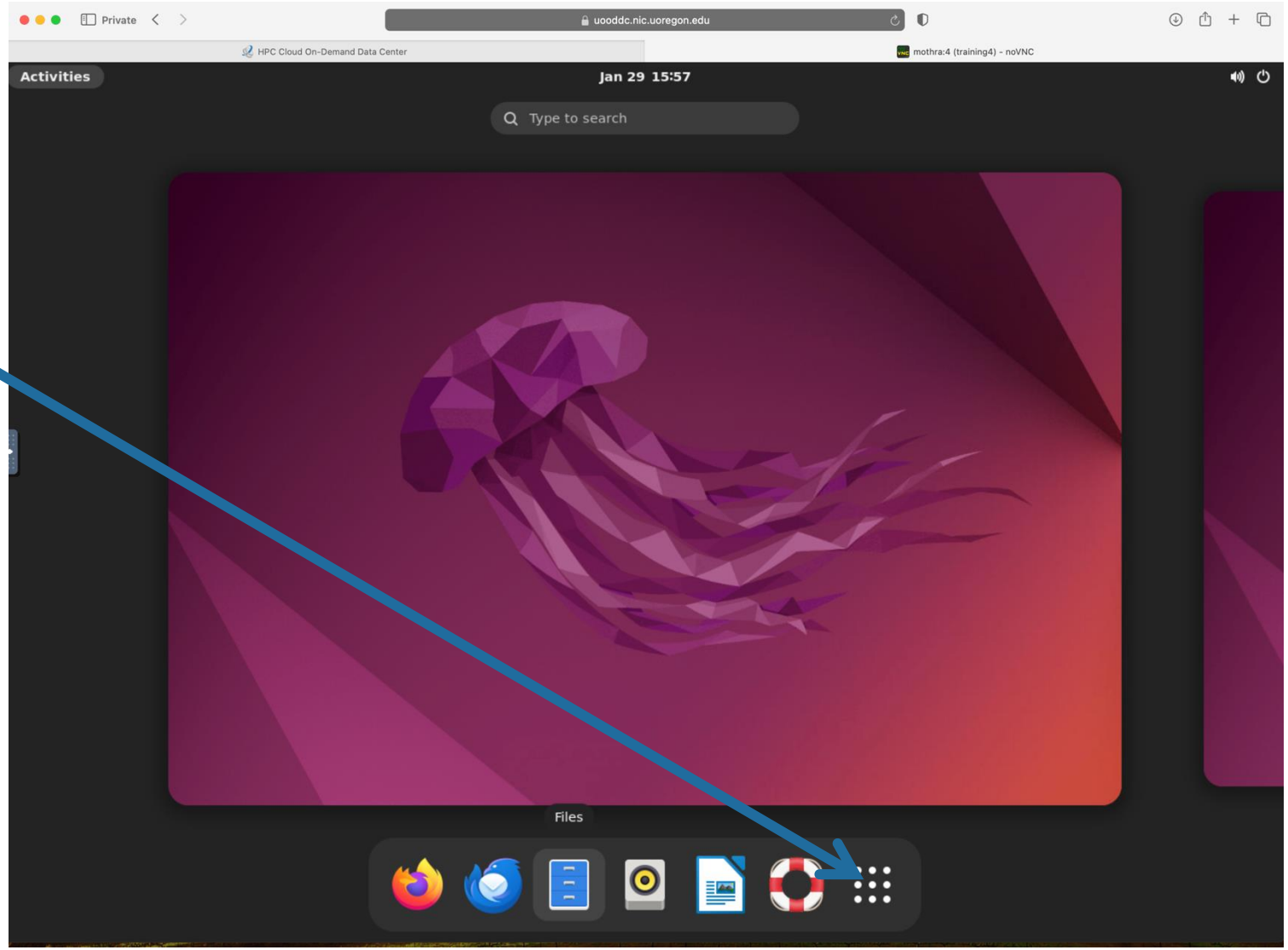


Click here

To cut and paste to windows in Heidi

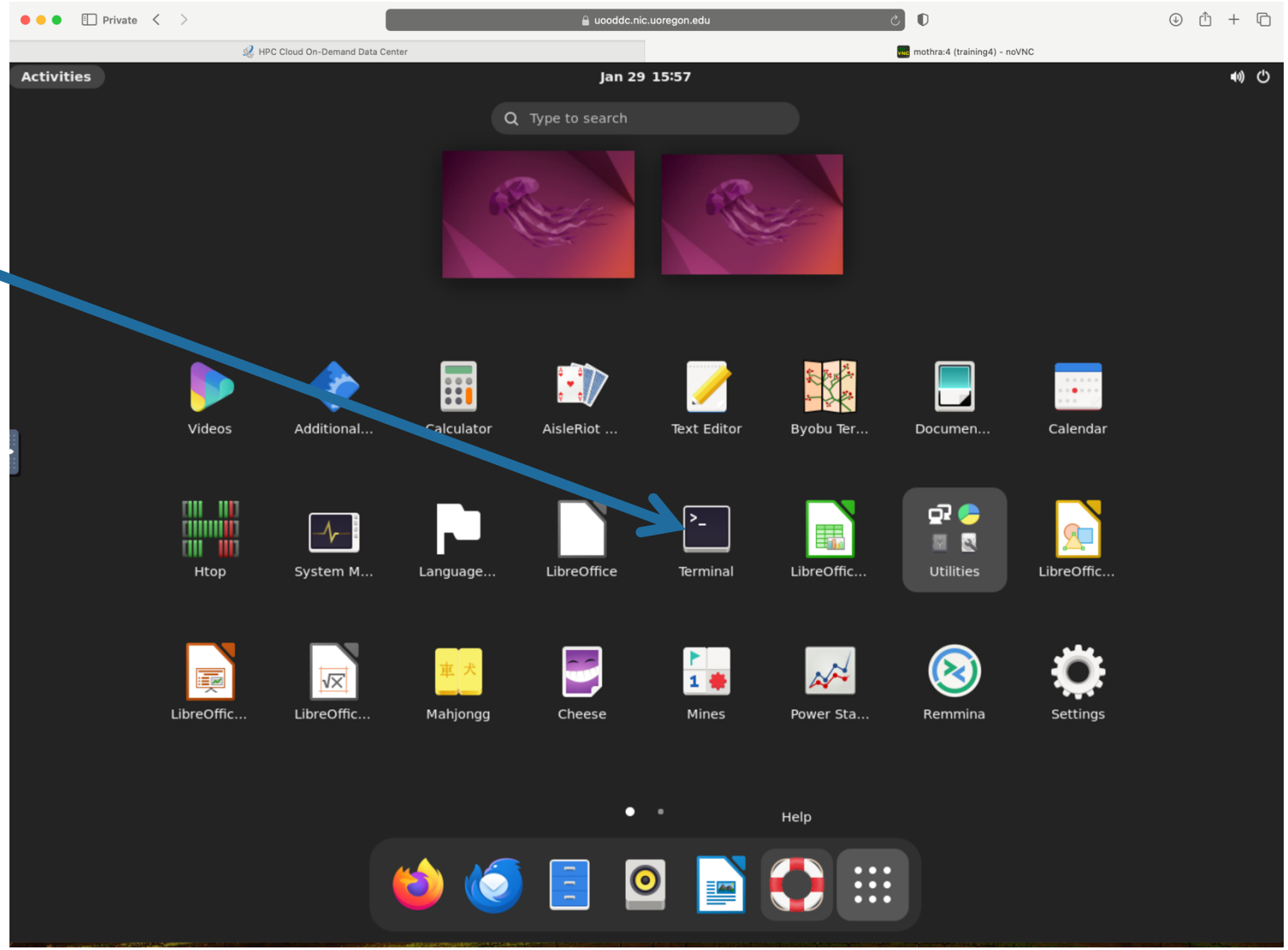
Launch Terminal Application from the desktop

Click here

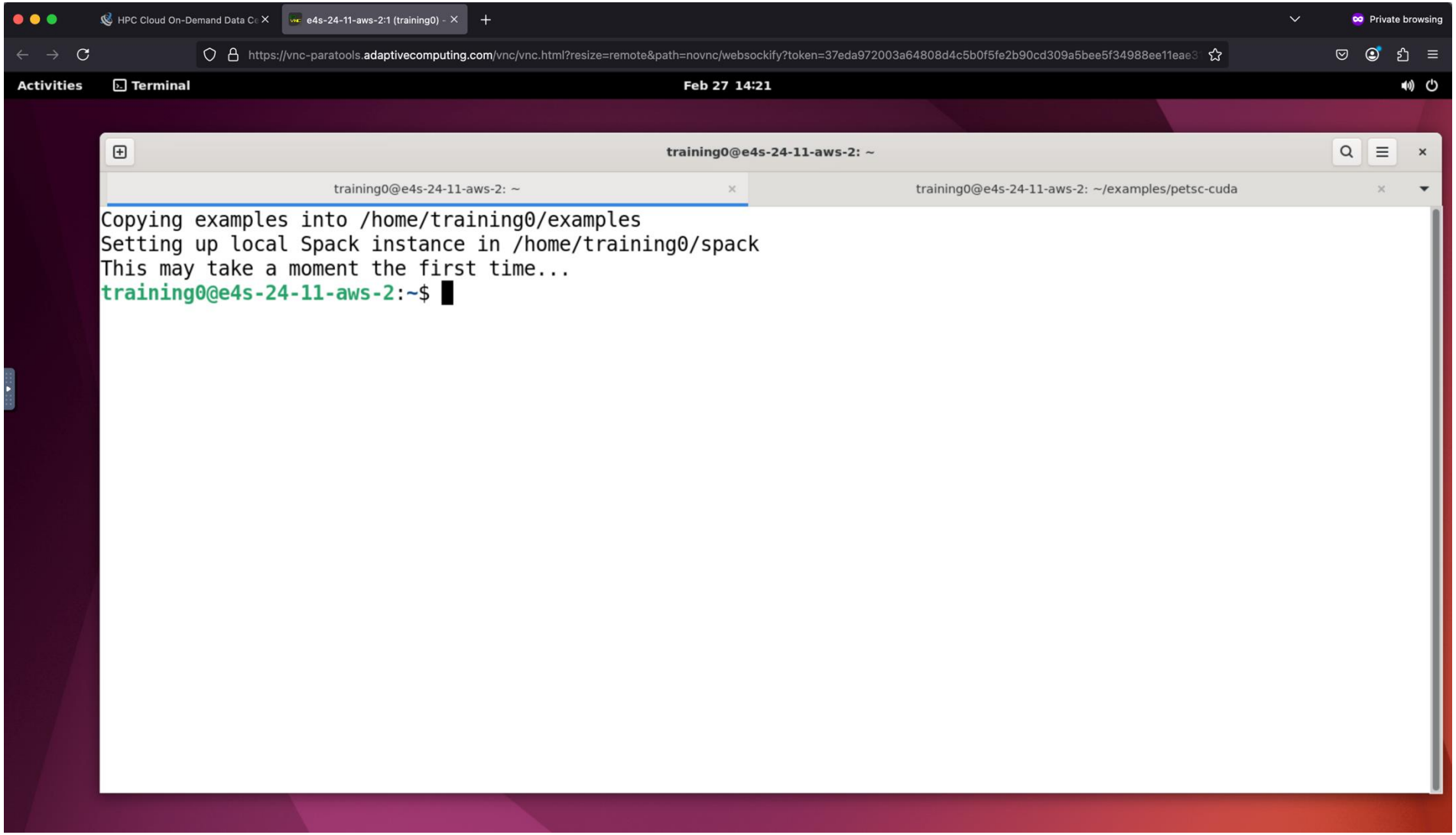


Launch Terminal from Applications

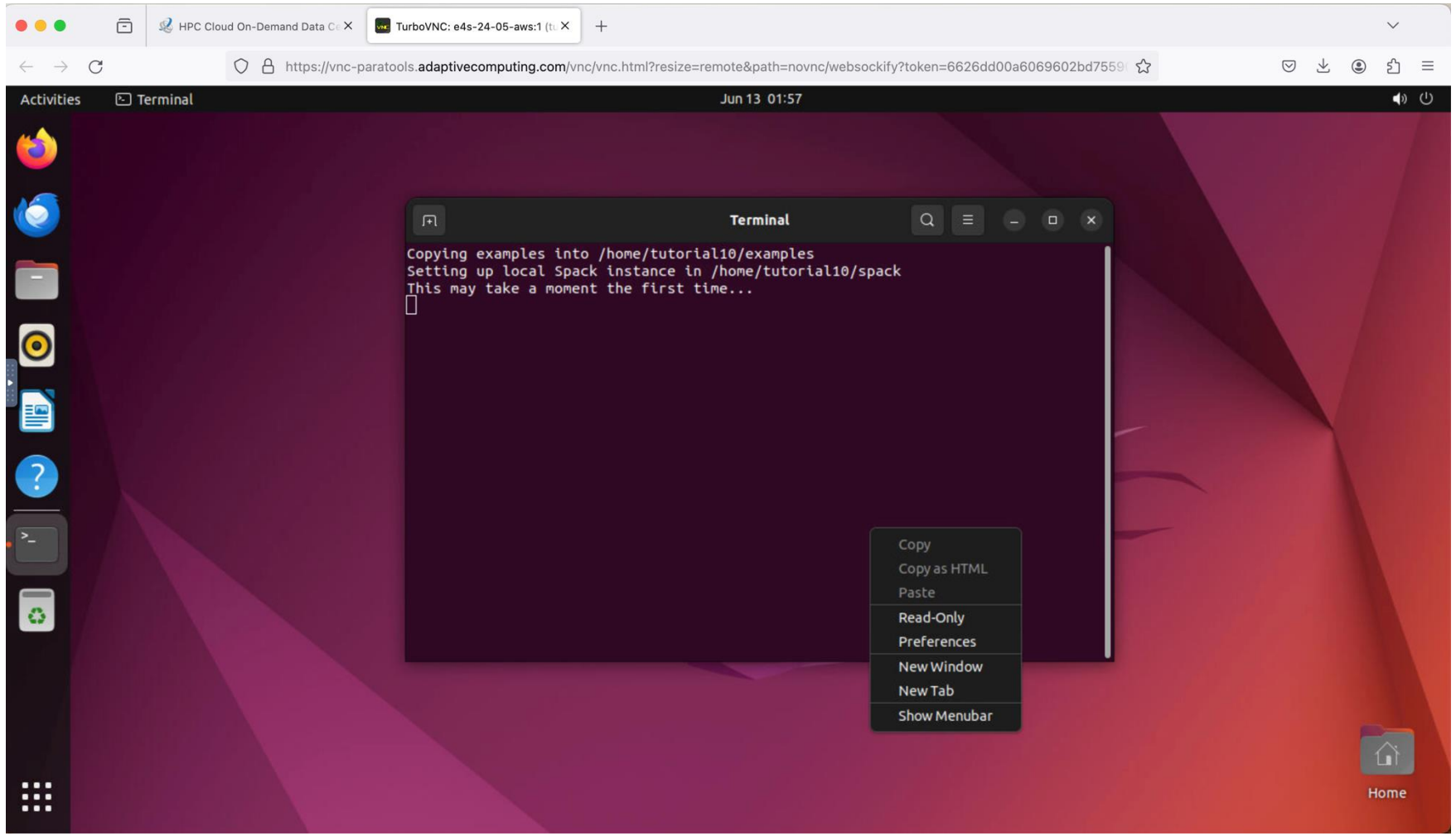
Click here



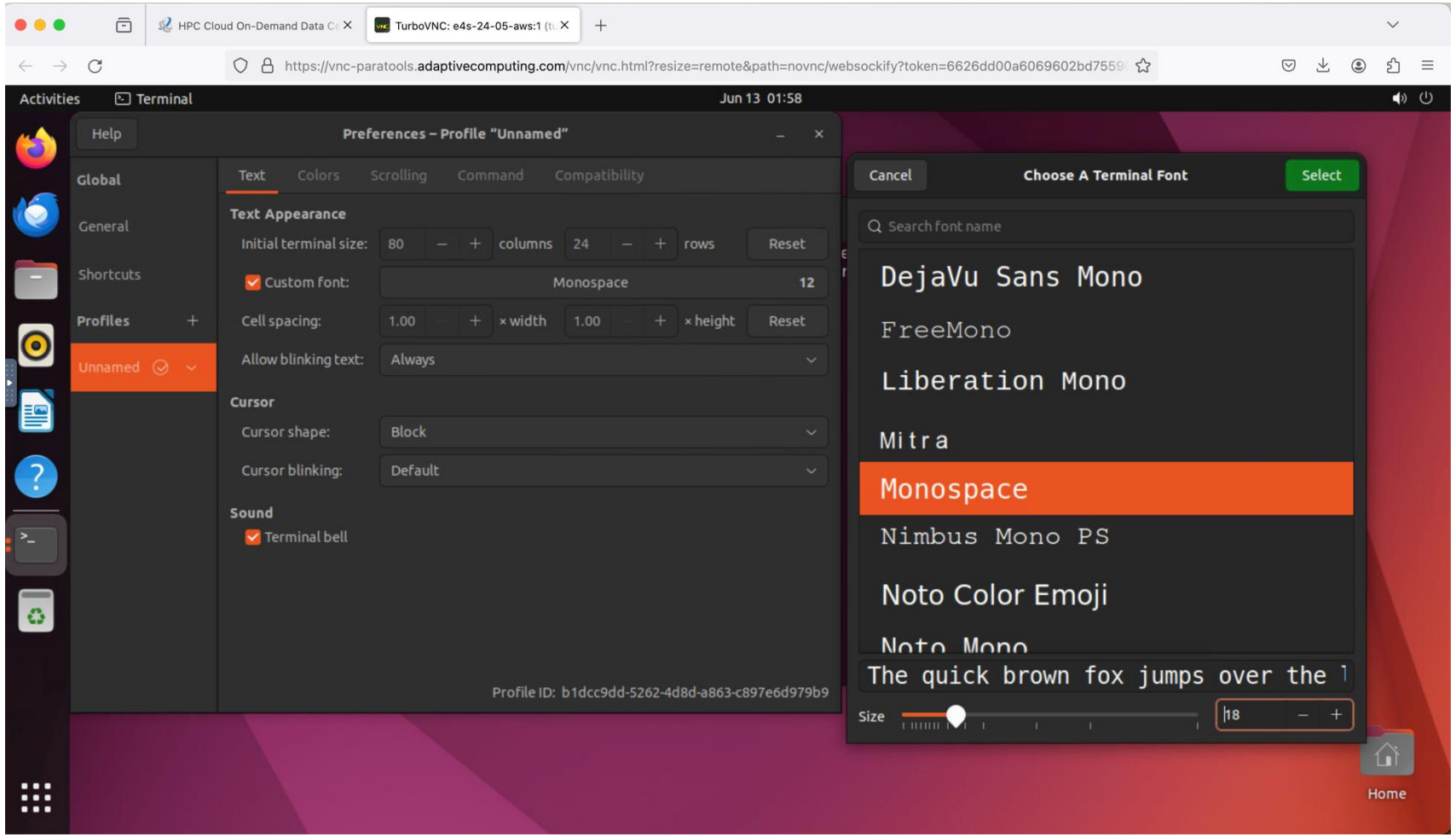
Launch Terminal from Applications



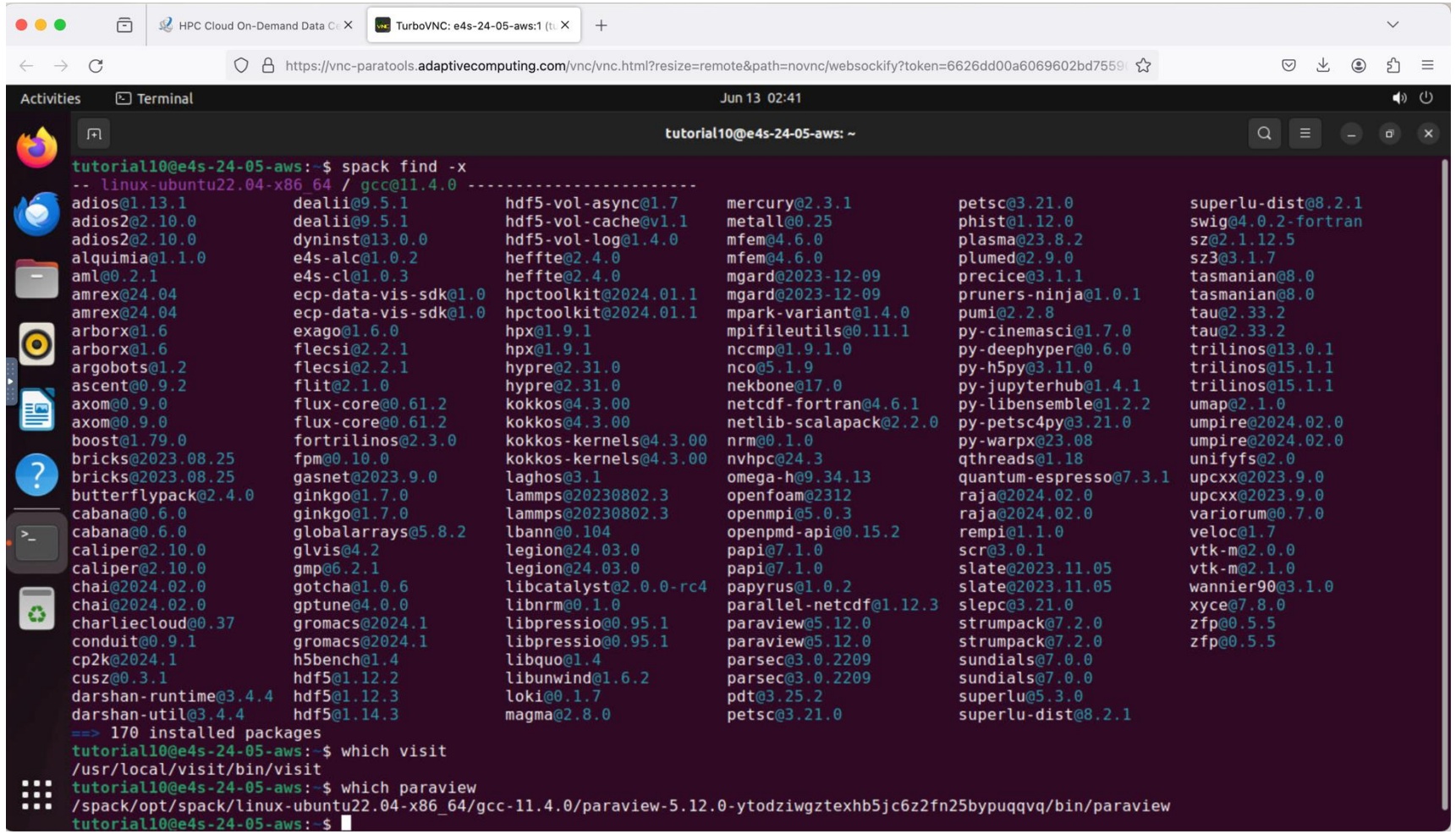
To increase font size right click and choose preferences



Choose font size after clicking Custom Font for Terminal



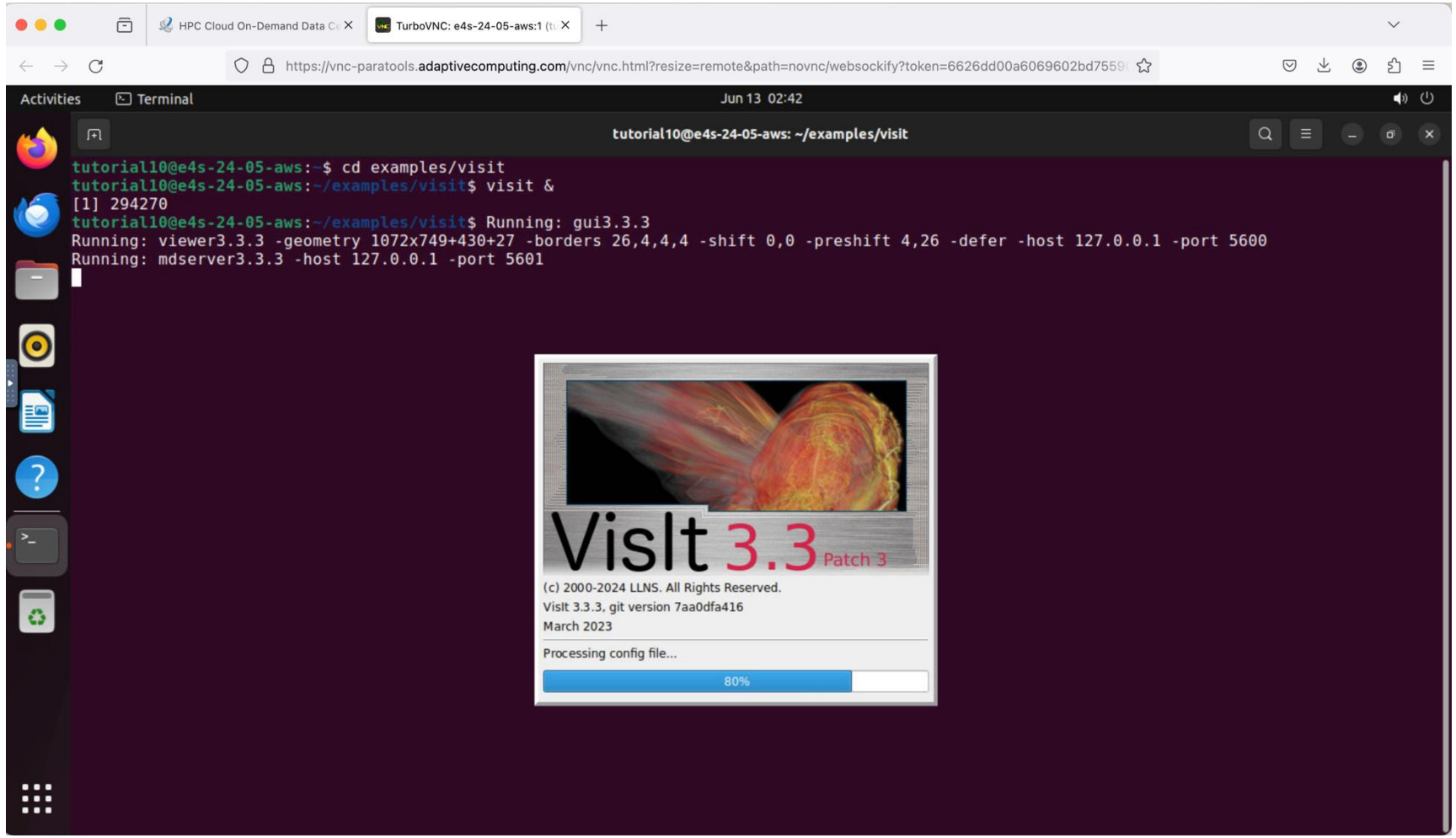
Spack package manager [https://spack.io]



spack find –x
spack find

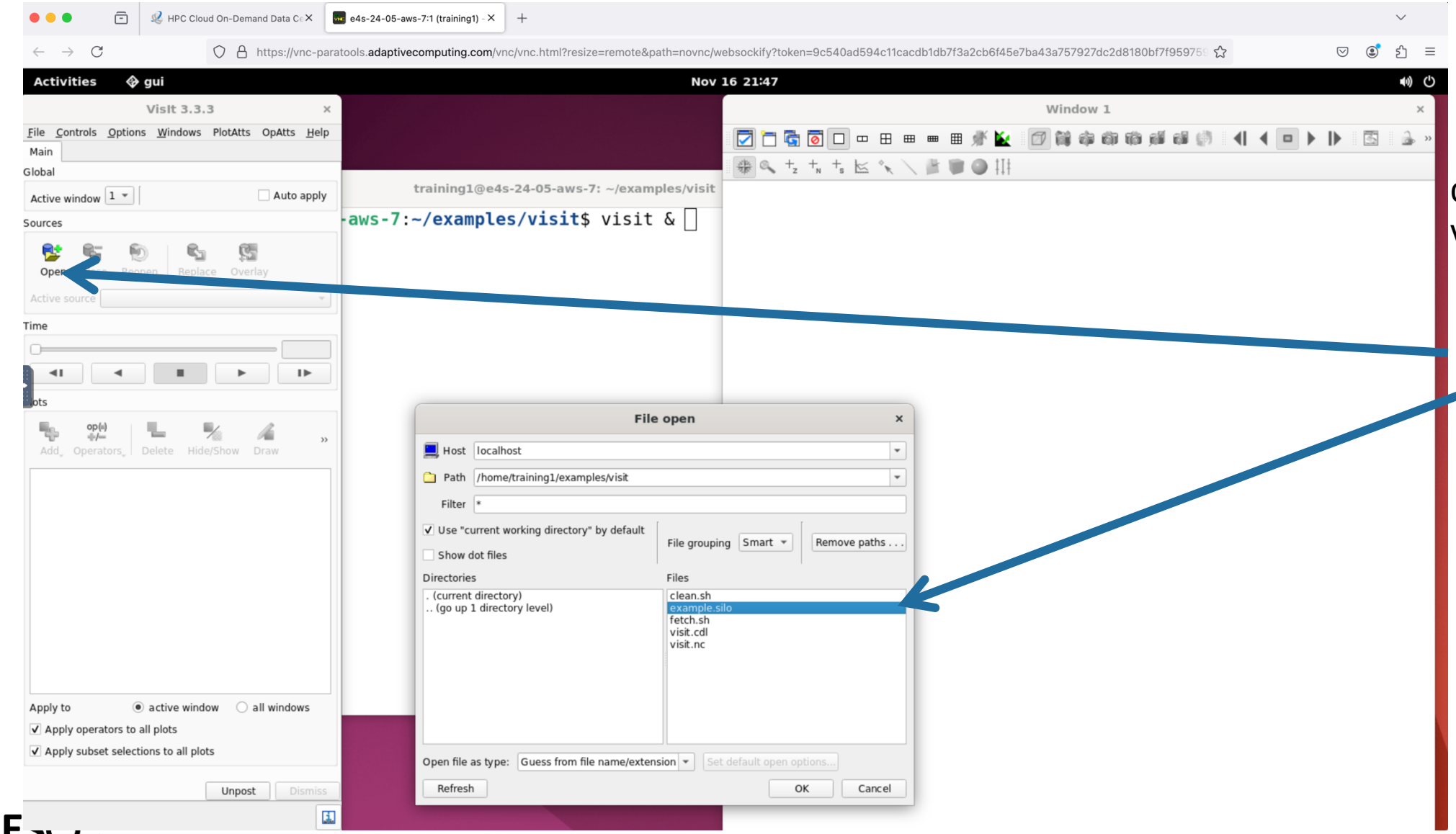
module avail

VisIt visualizer: 3D graphics on remote desktop



cd ~/examples/visit
visit &

VisIt visualizer: 3D graphics on remote desktop

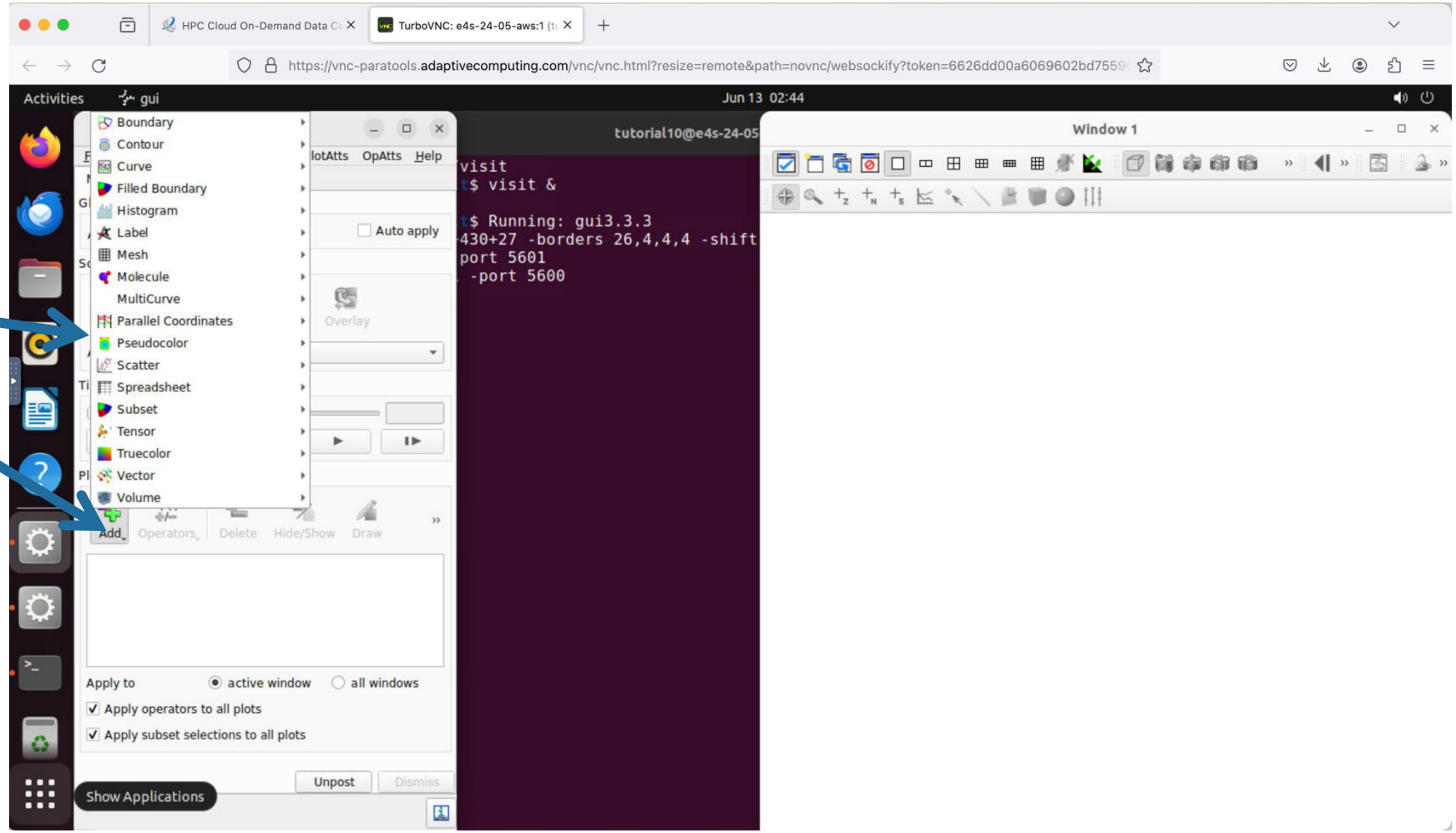


cd ~/examples/visit
visit &

Open example.silo

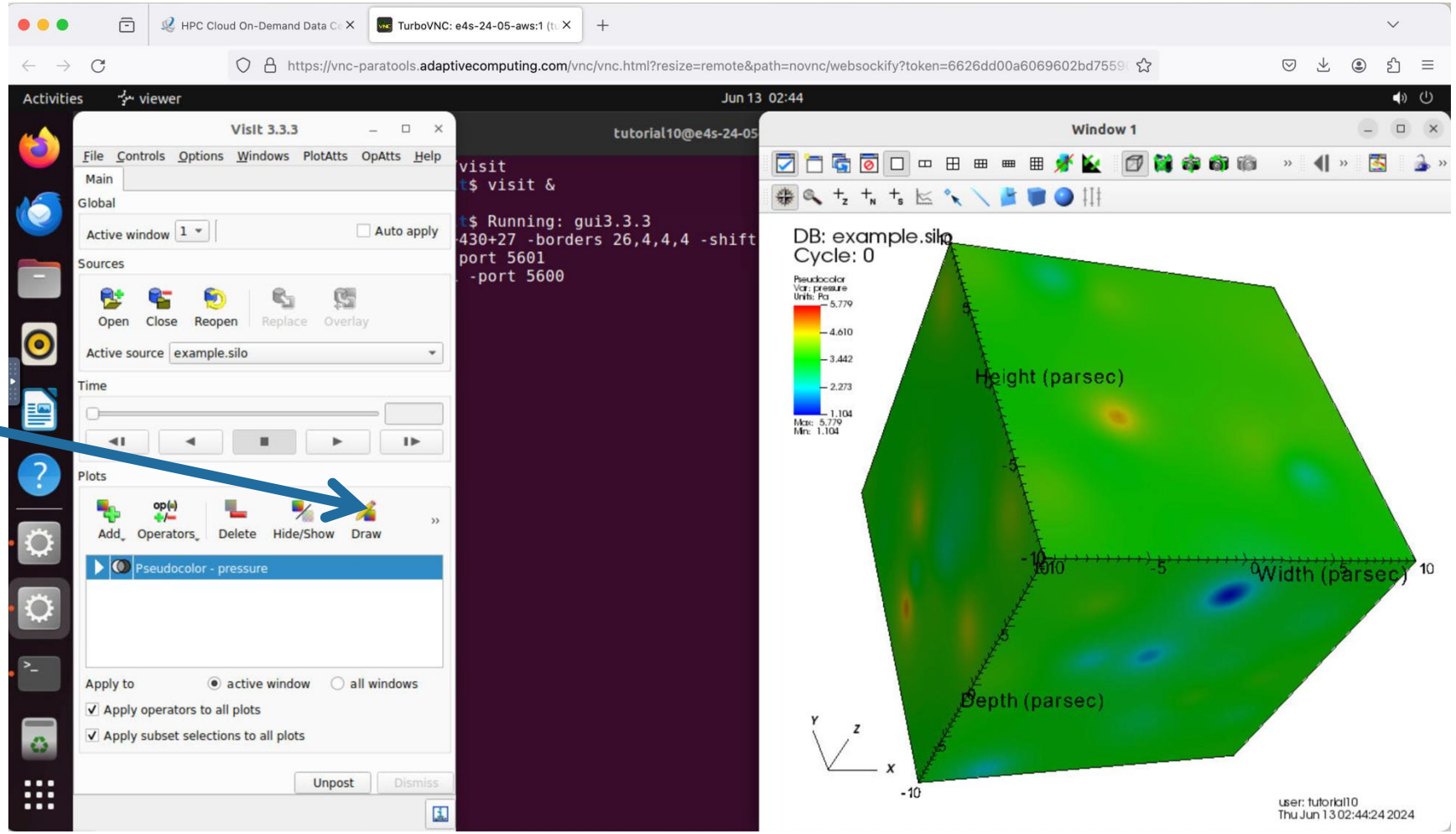
VisIt visualizer

Click Add
Add Pseudocolor ->
Pressure
Click Draw



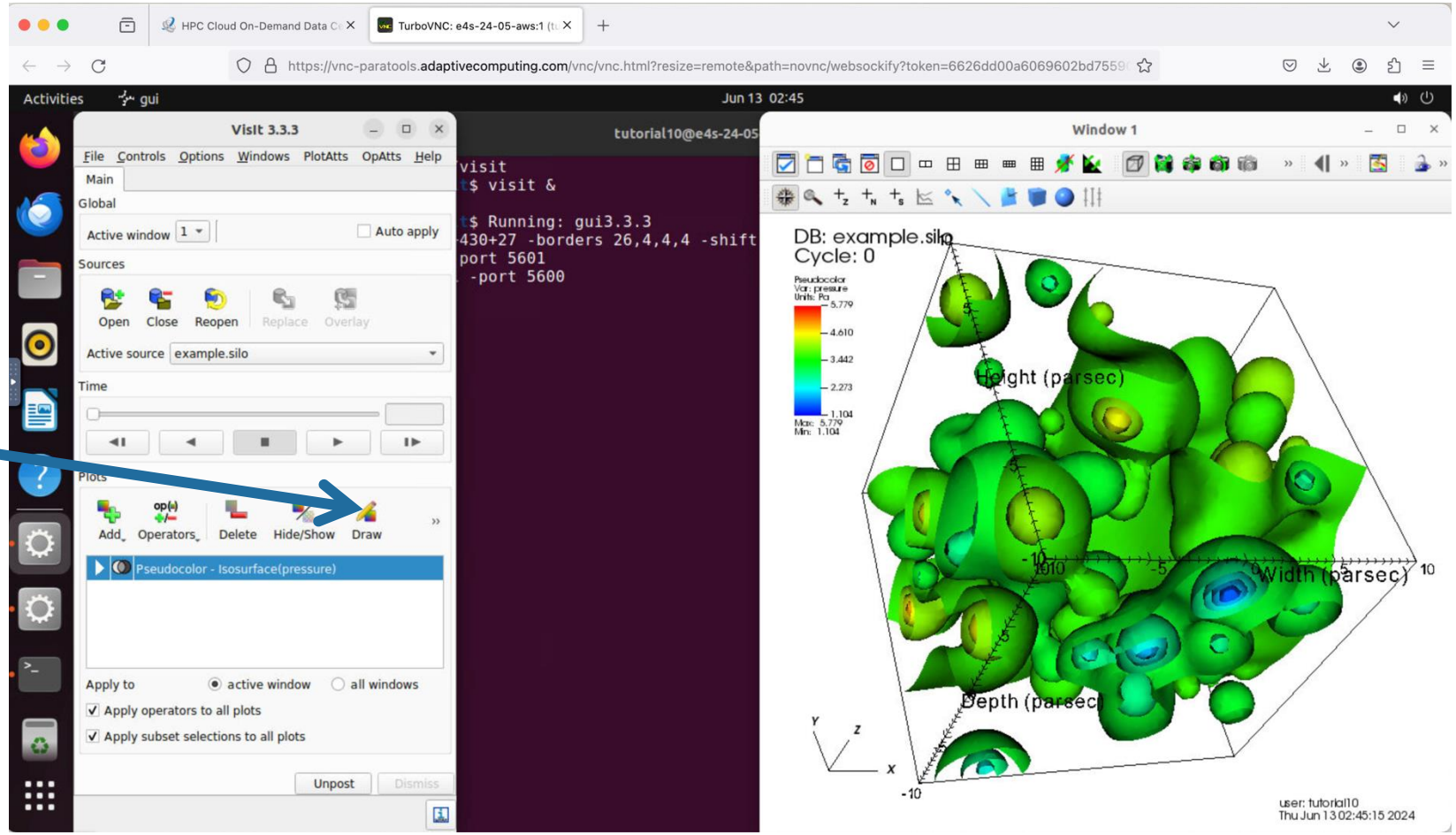
VisIt visualizer

Add Pseudocolor ->
Pressure
Click Draw
Rotate image

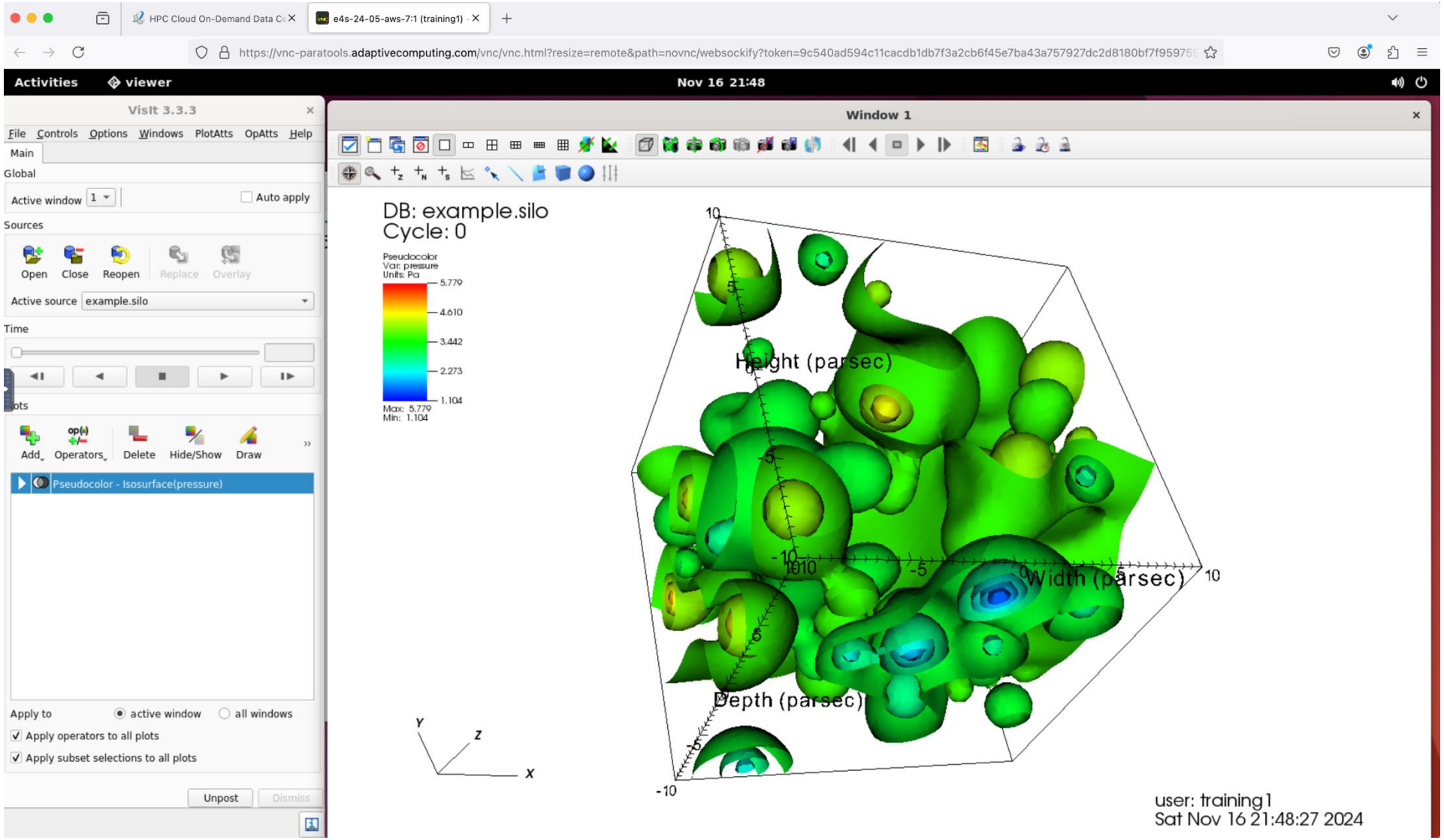


VisIt visualizer

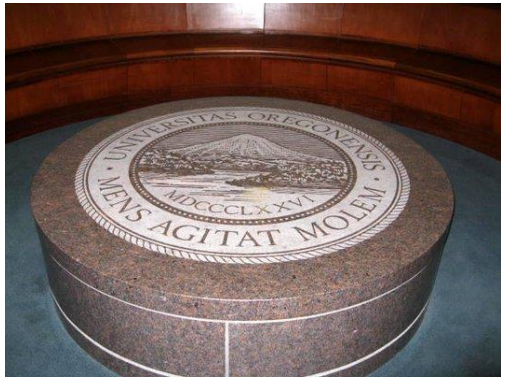
Add Operators ->
Isosurface
Click Draw
Rotate image



VisIt visualizer: 3D graphics check



Performance Research Laboratory, OACISS, University of Oregon



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- https://science.osti.gov/ascr
- https://pesoproject.org
- https://ascr-step.org
- https://hpsf.io
- https://www.energy.gov/technologytransitions/sbirsttr

PESO

Thank you

https://www.exascaleproject.org

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