RZ Seminar – Elwetritsch – Desktop – Files
High Performance Computing with Elwetritsch

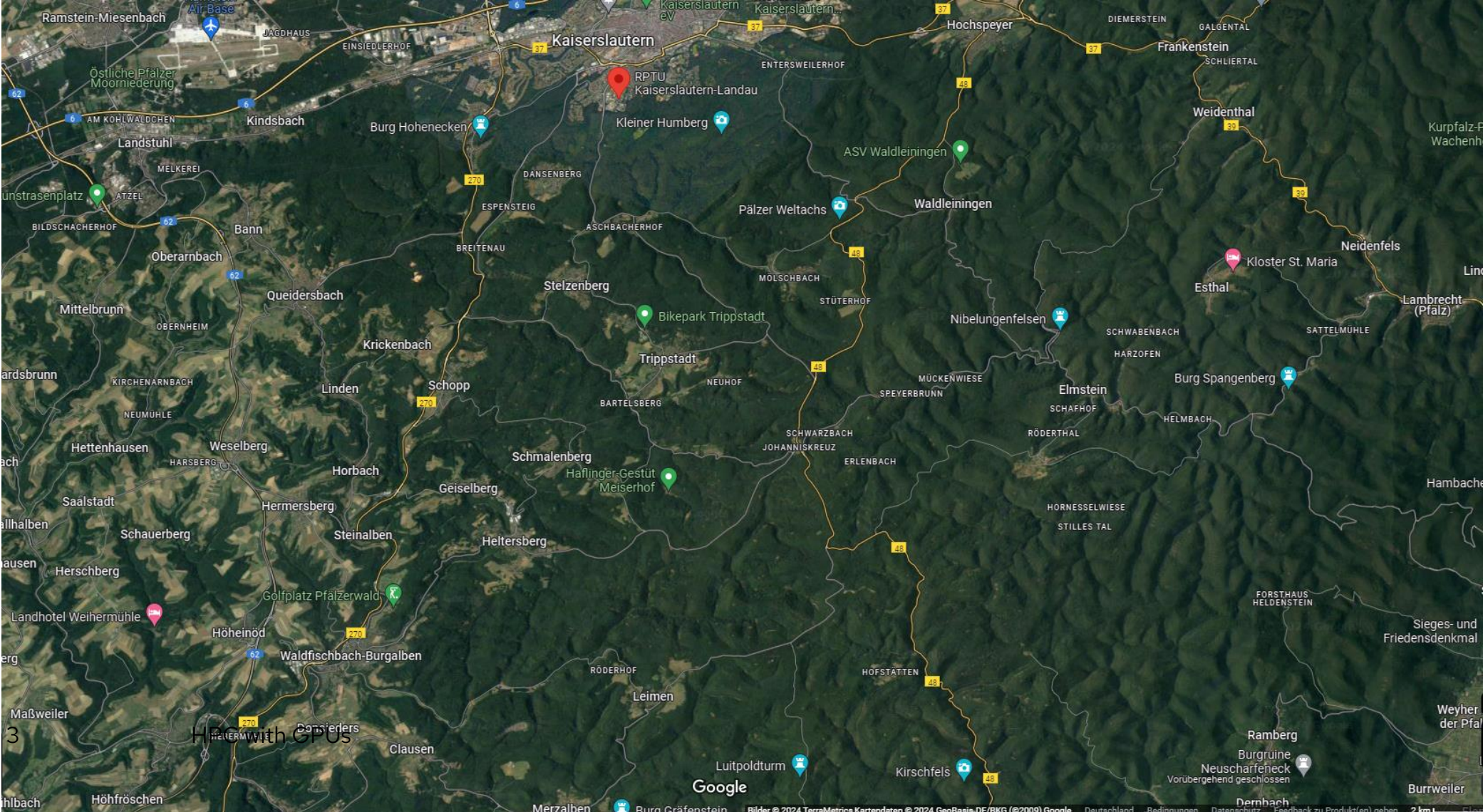# Elwetritsch

Kaiserslautern

HPC with GPUs

Overview all seminars

- Cluster Elwetritsch
- Accessing Elwetritsch
- Available Software
- DesktopSubmitting Jobs – SLURM
- Available Hardware
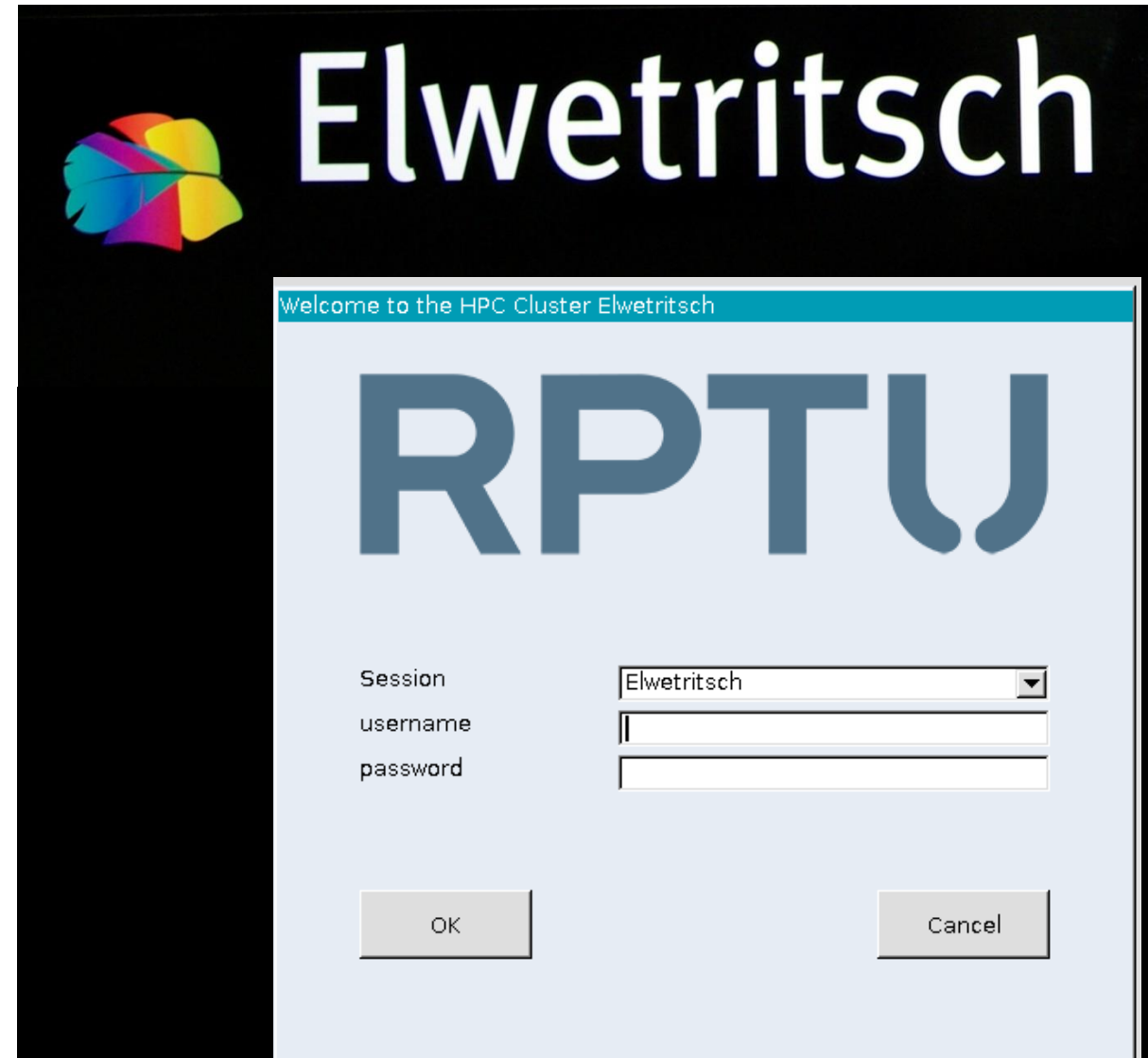- Monitoring
- Linux Basics

RPTU

Login

Premises

- member of RPTU
- student during a project – access rights assigned by supervisor via serviceportal
- AHRP members via the RARP service registration portal
- Control/set privileges

Most important – no costs!

Several methods to access the cluster

Most popular:

Remote Desktop Protocol

Elwetritsch Basics

4 login nodes (RPTU)
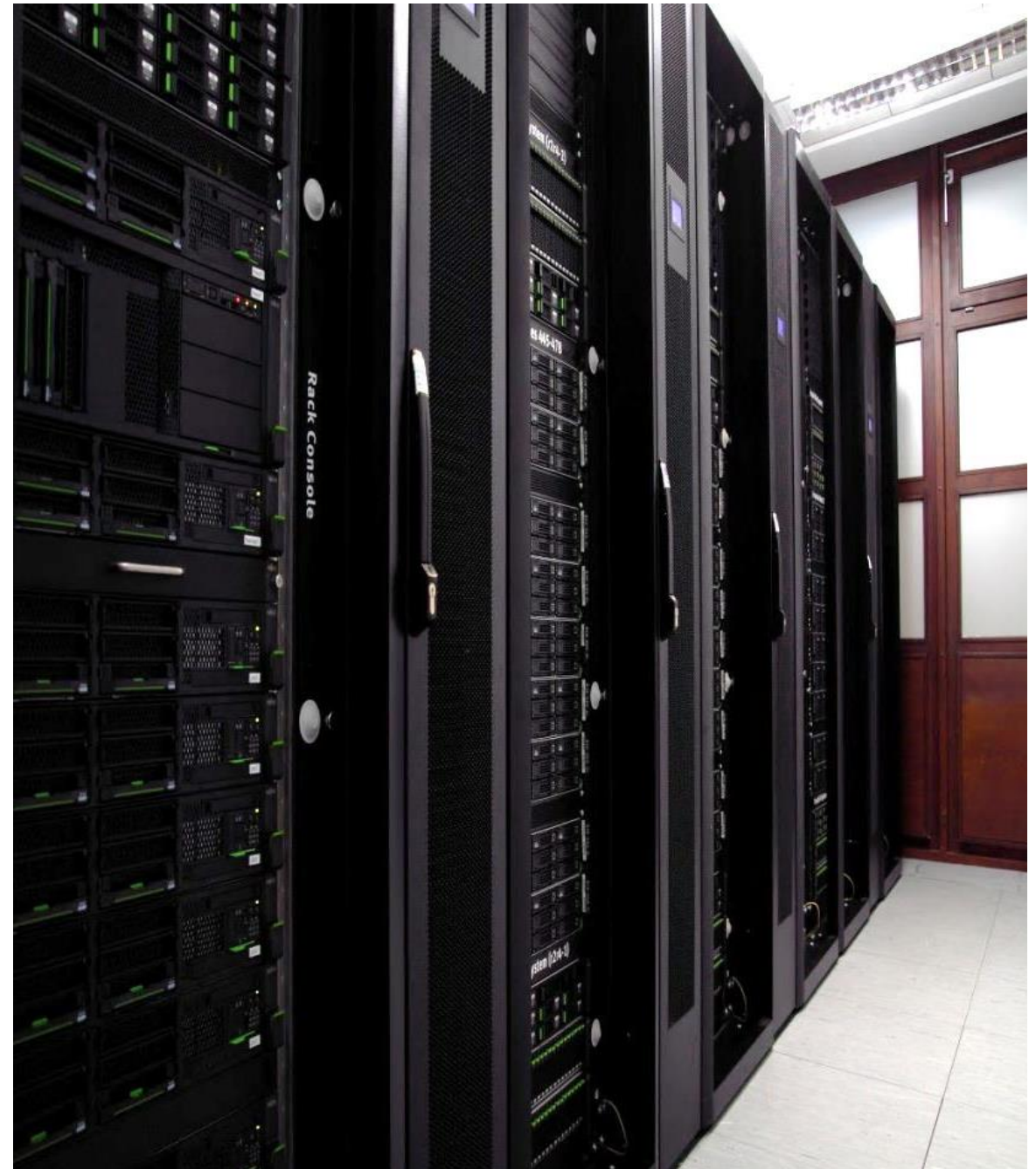**2 login** nodes (RARP)
nodes for **computing**
– CPUs only
– GPUs
nodes for **visualization**

ubiquitous access
VPN required

Connecting Linux and OS-X

local access (RPTU) or VPN required
intrinsic ssh available
Please read ssh.shtml carefully.

ssh -X elwe4.rz.rptu.de
will open a connection which allows X-forwarding for graphical applications.
Other possibilities: rdesktop, freerdp

MACs require extension for an open sources X11-Client or Apple X11, or use the RDP equivalent cord

RPTU

Connecting Windows

The RDP (remote desktop protocol) client comes with the basic windows installation and is recommended.

For file transfer we recommend Bitvise Tunnelier.
- to be used locally at RPTU
- ubiquitous use requires VPN
- fast and effective

Installation and key management is described at our YouTube alternative: Bitvise.mp4

RPTU

Using NX

On server adress elwe-nx.rptu.de you may connect via nomachine after configuration to use
- no UDP
- protocol NX
- host elwe-nx.rptu.de
- a fully qualified desktop
- user defined session to login like using ssh but with enabled X services

HPC with GPUs

RPTU

still more

x2go
which provides a simple and easy to install virtual desktop

nice-dcv
requires licenses on our site. Therefore access is limited. In some special cases commercial graphical programs, like Ansys and Abaqus, won't run otherwise.
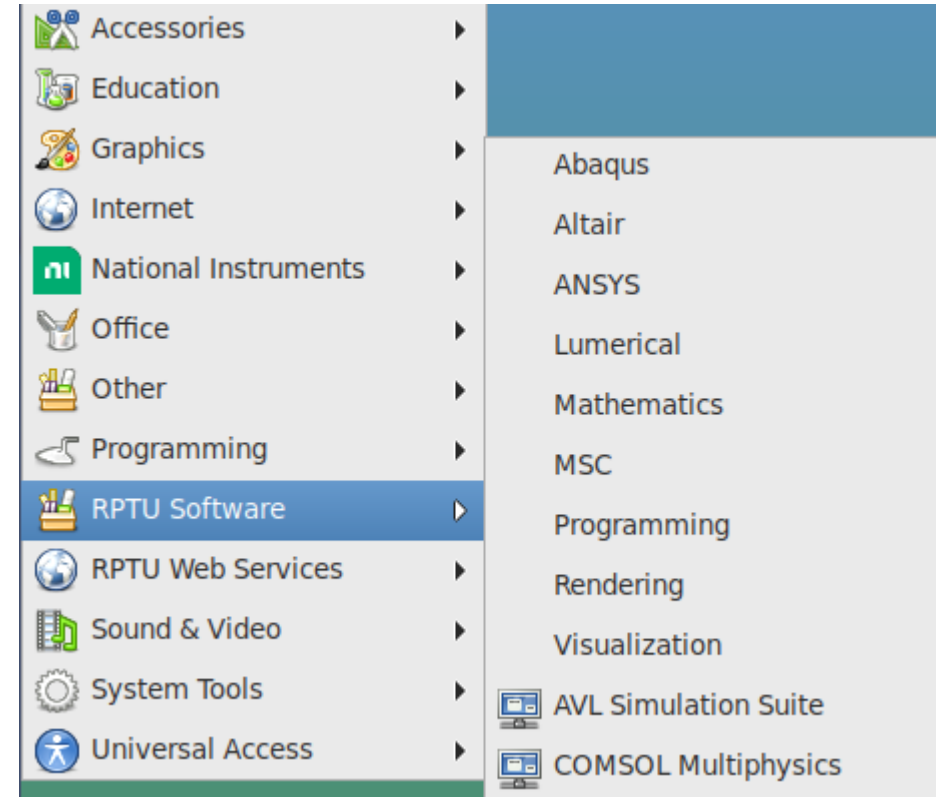Please contact us.
To be used in a browser window.

RPTU

RDP Desktop

Classical graphical desktop
- file manager
- menus
- common look & feel

set of accessories

Files on Elwetritsch

"Typical" Home (located at /home/<your user id>)

- cosy
- secure (we take backups)
- but limited
- <u>restore</u> deleted files

If you have problems with your quota – it might be your trash

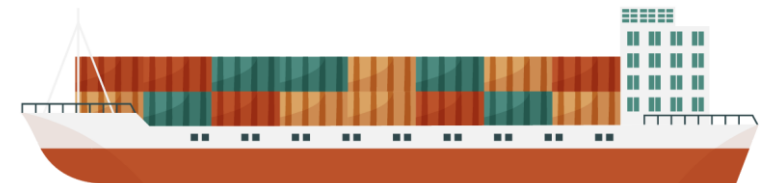**RPTU**

Files on Elwetritsch

A little bit more?

/scratch/<your user id>) waits for you.
- no quota
- no backup - deleted files are gone

This is the right place for files
casualy read/write
GB sized
not used for AI training

In your scratch-folder you find a folder large_files.
that's for single large files (100GB)
not for many smaller files in a large volume

RPTU

Files on Elwetritsch

And here is the file space for AI
Many small files you visit frequently.
Write us an email and we will grant you space in /work/<your user id>
- no quota
- no backup

If your working group works on a common training set
- please contact us
- we arrange just another file space in /archive
- one for the whole team

RPTU

Files on Elwetritsch

Some hints on graphical file managing software

Removing files will move them to your trash
- you may exceed your quota
- it lasts long – the files are copied

See FAQ – How to delete many files?

Save /scratch/<your user id> in a bookmark to avoid searching for it

If you want to work on many files (copy, move, remove) them:

don't do it graphically (one by one).
In our seminar you learn a bit of LINUX
it's so easy to avoid that havoc

RPTU