



# New stages of the HybriLIT development

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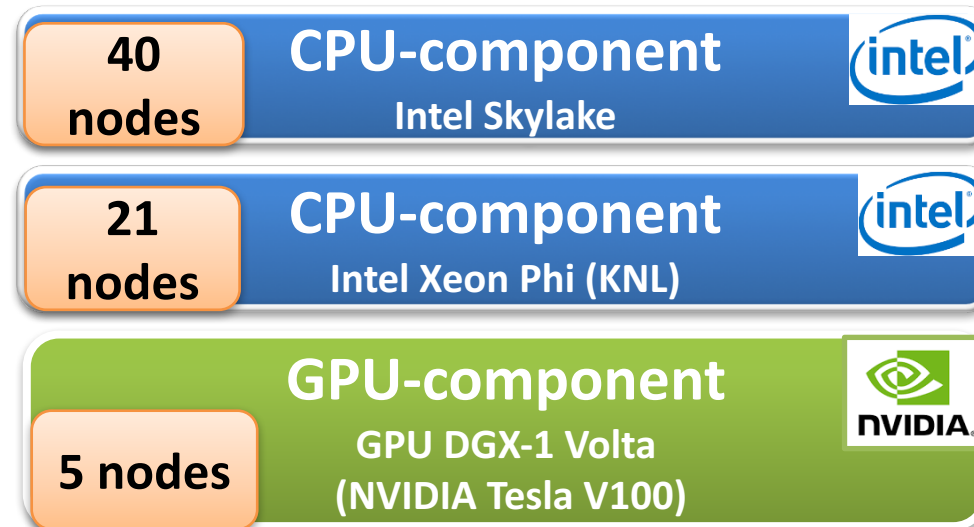
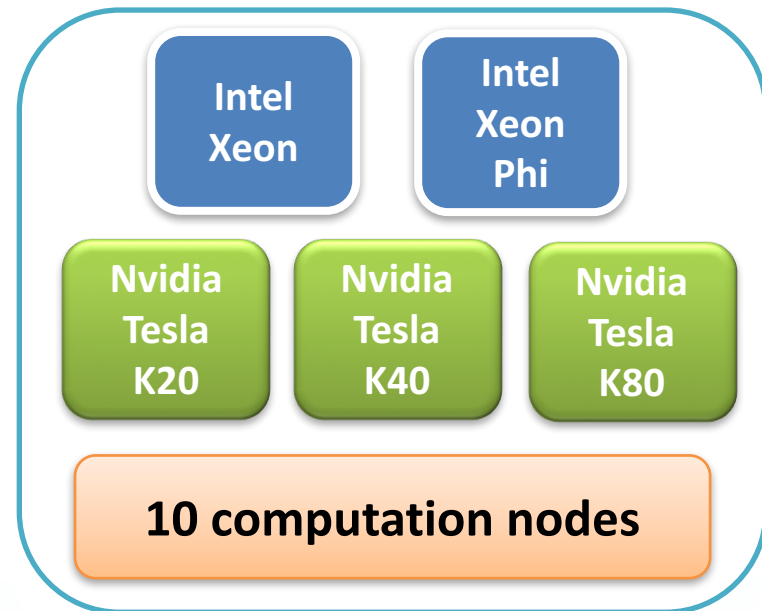
Heterogeneous Computations team  
LIT JINR

# HybriLIT heterogeneous platform

Unified software and information environment

Training and testing polygon  
“HybriLIT”

“Govorun” Supercomputer



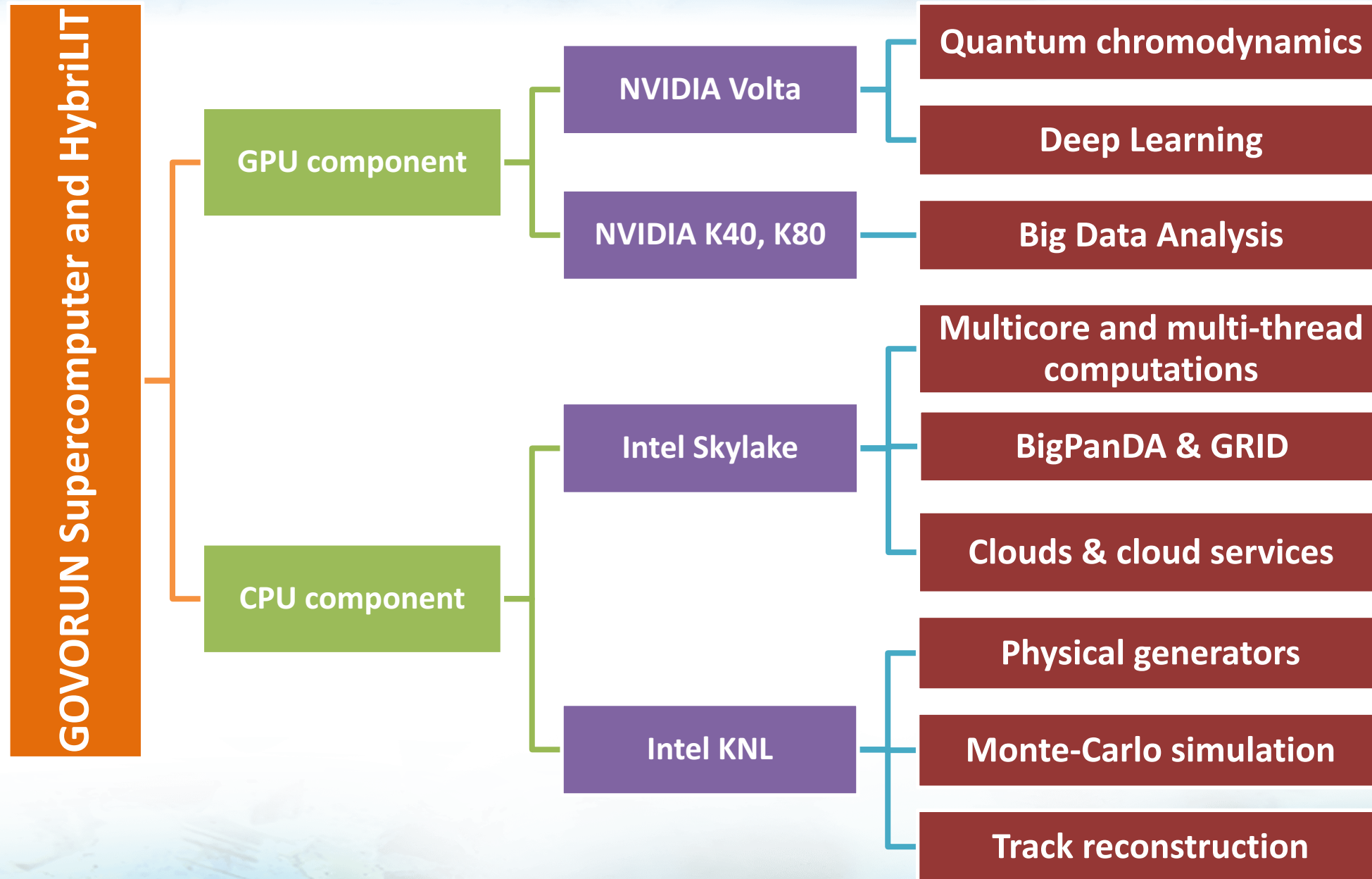
**Skylake**  
1440 cores  
**KNL**  
1512 cores

**Volta**  
205 000 CUDA cores  
26 000 Tensor cores  
**K40, K80**  
78 000 CUDA cores

**Peak Performance: 1 PFlops**

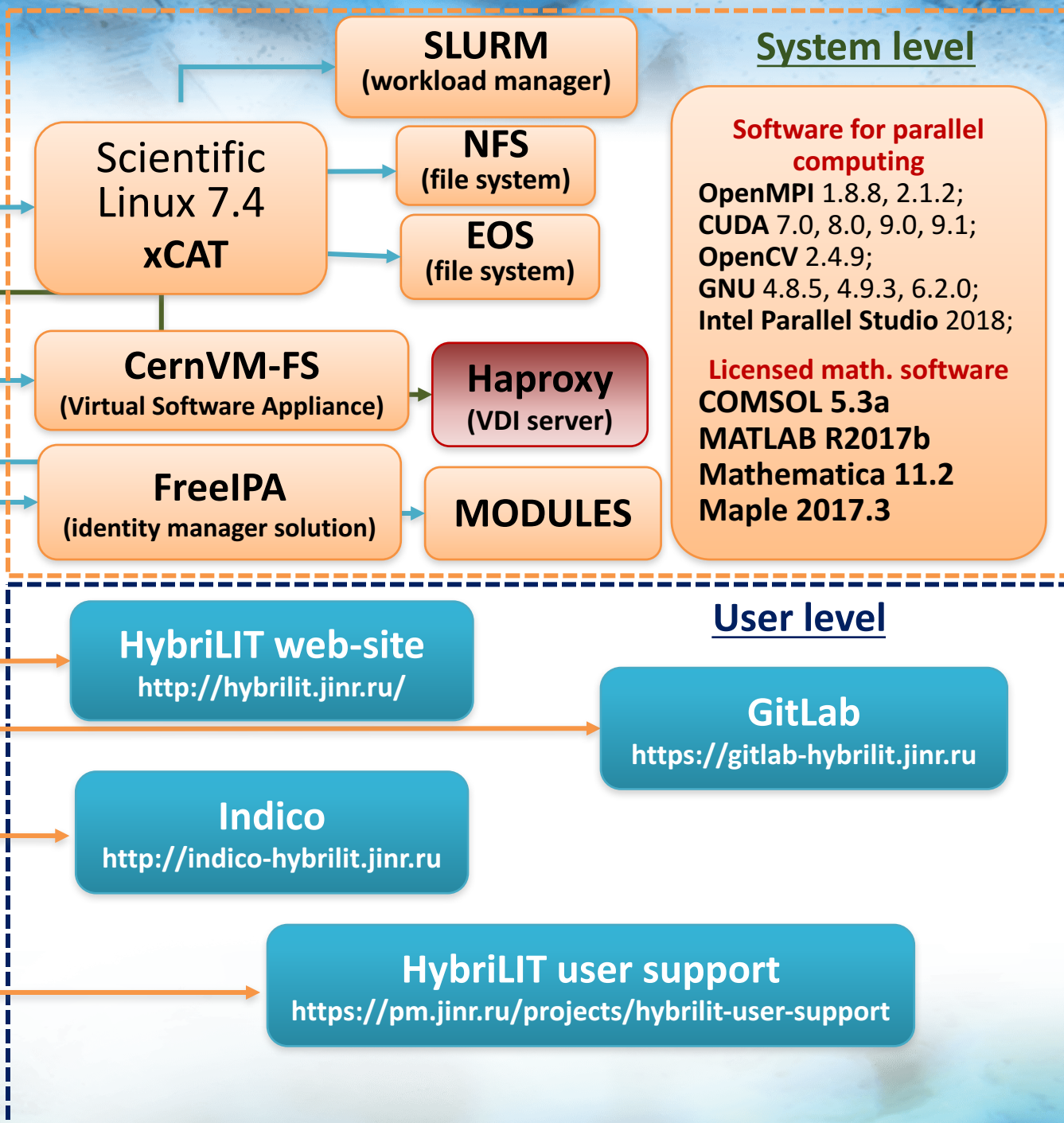


# Heterogeneous computations in JINR



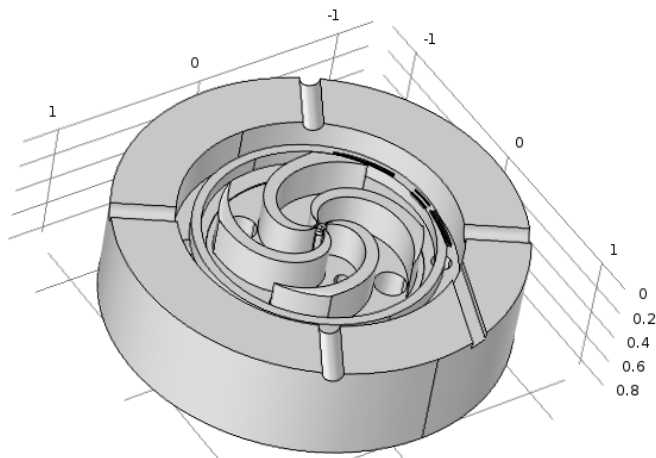
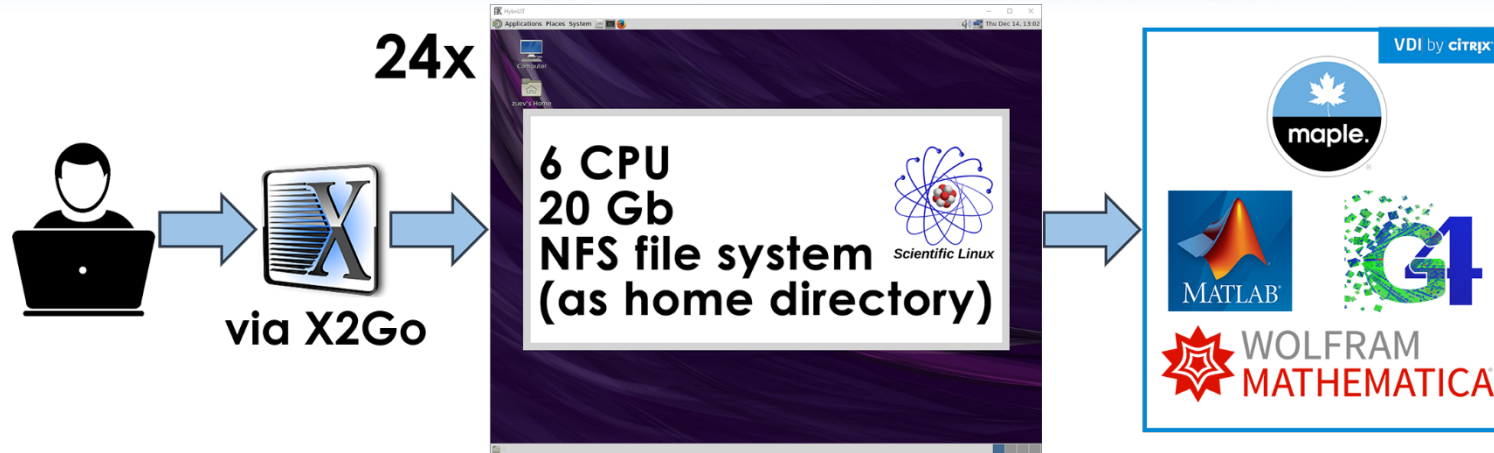
# HybriLIT

*Software and Information Environment*

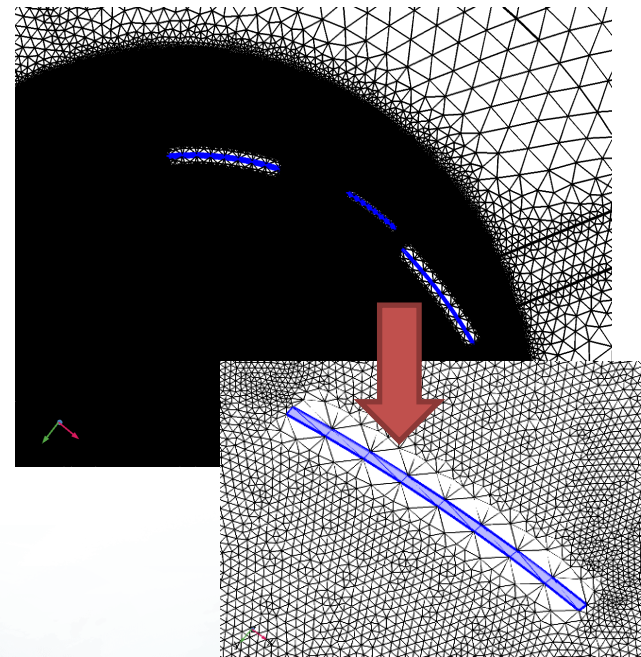




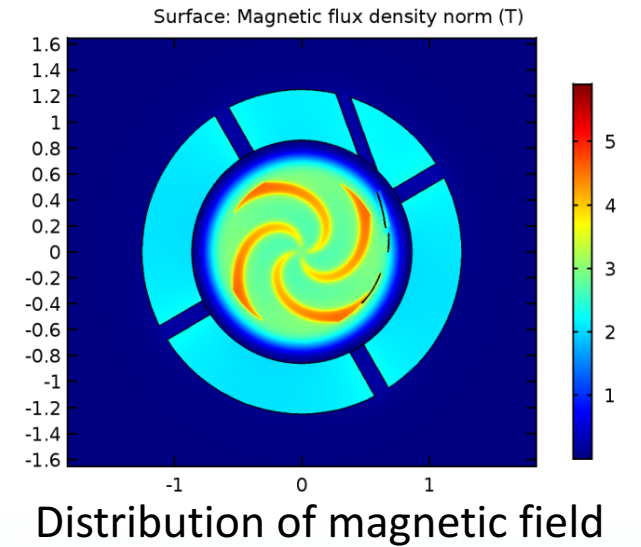
# HLIT-VDI – system of virtual desktop interfaces



Superconducting magnet SC200 for medical researches



Computation grid



# VM characteristics

Total number of VMs is **48**.

The main characteristics of VMs:

- *20 Gb RAM/VM*
- *6 CPU/BM*
- *NFS as home directory*

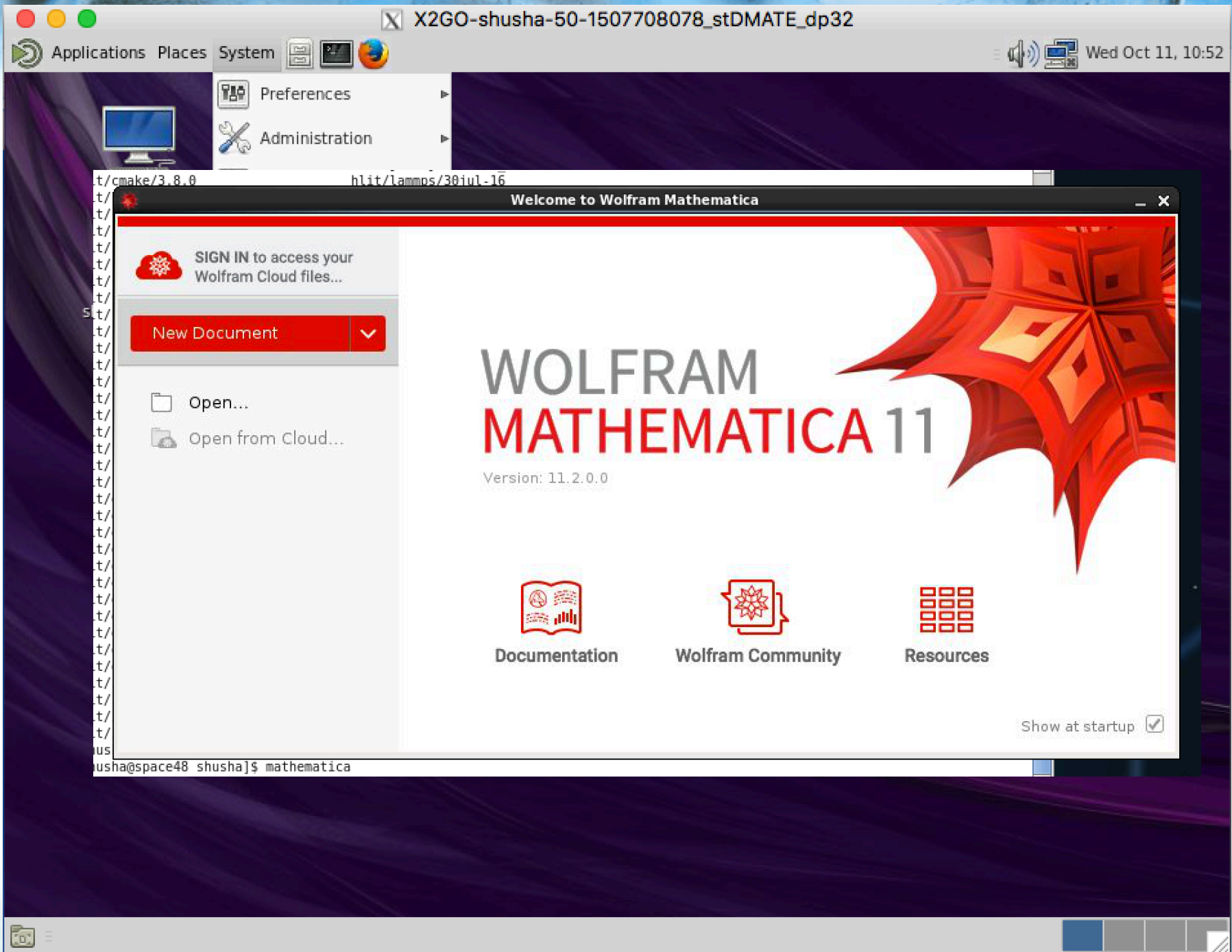
Login requirements:

- Login credentials for the HybriLIT
- Client settings (host name, session type, etc.)

Required software may be loaded using this command:

```
$ module add <name_of_package>  
$ < name_of_package > -- to launch the application
```

Some software packages are available with GUI support (e.g. Mathematica, Maple, Geant4, Wolfram Mathematica, etc).



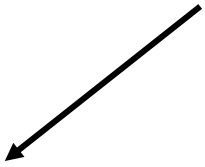
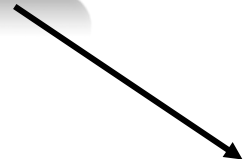


# Computation part

Computation may be carried out using

VM resources

resources of the HybriLIT cluster







hYBRI | 

Questions?