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<<http://www.gnu.org/licenses/>>.

The essence of today's course is to help users to understand the difference and move from local machines (desktop, laptop, workstation) to one of the supercomputers of SCC (UC3=bwUniCluster or HoreKa).

You need separately a program to copy files from/to the supercomputer. For this you may use WinSCP (windows), MobaXterm (windows), filezilla (linux) etc. You also need a tool to type the commands (called terminal) – this can be e.g. PuTTY, or a local linux partition on your local computer. There are many different ways of doing those tasks, we cannot list all of them here. Our computers can be accessed by:

uc3.scc.kit.edu (bwUniCluster) or horeka.scc.kit.edu (HoreKa)

Local computer:  
Serial computations

1. Install openFOAM

2. Use local HDD

3. Start directly:  
pimpleFOAM

4. View in ParaView

Supercomputer:  
parallel simulations

1. „module load ...“ + foamInit

2. Use workspaces

3A. decomposePar  
(for parallel jobs)

3B. Edit a job-file and submit a job  
to one of the queues

3C. **Do not use the Allrun-script** in  
case of large parallel runs! Grid  
generation is not parallelized and  
**Allrun is very bad for large cases.**  
Use the steps we teach you today!

4A. reconstructPar  
(optional but recommended)

4B. Copy result-files  
locally and view in  
ParaView