

An Introduction to HPC at the University Oldenburg

March 25 – 28, 2019 from 10:00 to 17:00 in room W1 0-008
 given by Wilke Trei (UOL), Stefan Harfst (UOL) and Atanas Atanasov (Intel)

Time	Monday	Tuesday	Wednesday	Thursday
10:15 – 11:15	Introduction to HPC (SH) <ul style="list-style-type: none"> • Motivation • Architectures • Overview CARL and EDDY 	Intel Cluster Tools (AA) <ul style="list-style-type: none"> • Compiler • Intel MKL • ThreadAnalyser • ... 	Introduction to Parallel Programming (SH) <ul style="list-style-type: none"> • Overview over parallel models • Parallel Programming with OpenMP 	Introduction to Matlab on the local HPC-System (SH) <ul style="list-style-type: none"> • Setting up the Client • Job submission
11:15 – 11:30	Coffee Break			
11:30 – 13:00	Basic Usage of the HPC Cluster (WT) <ul style="list-style-type: none"> • Job Scheduler SLURM • Basic Use of SLURM • Exercise SLURM 	Intel Cluster Tools (AA) <ul style="list-style-type: none"> • (cont'd) 	Parallel Programming with OpenMP (WT) <ul style="list-style-type: none"> • Examples and Exercises 	Parallel Programming in Matlab (SH) <ul style="list-style-type: none"> • Parfor • Examples
13:00 – 13:45	Lunch Break			
13:45 – 15:15	HPC Environment (SH) <ul style="list-style-type: none"> • File Systems • Software and Modules • Compiler and Toolchains • Examples and Exercises 	Intel Cluster Tools (AA) <ul style="list-style-type: none"> • (cont'd) 	Parallel Programming with OpenMP (WT/SH) <ul style="list-style-type: none"> • Examples and Exercises 	Parallel Programming in Matlab (SH) <ul style="list-style-type: none"> • SPMD • Examples
15:15 – 15:30	Coffee Break			
15:30 – 17:00	Advanced SLURM (SH) <ul style="list-style-type: none"> • Job Arrays • Examples and Exercises 	Intel Cluster Tools (AA) <ul style="list-style-type: none"> • (cont'd) 	Performance Optimization (SH) <ul style="list-style-type: none"> • Examples and Exercises 	