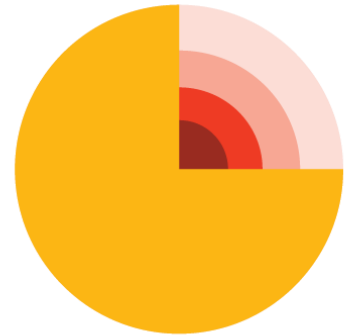


T2.1 and T2.2 Activities and highlights

Flagship code LaMEM extended team

Anton Popov, Boris Kaus & Iskander Ibragimov

31/10/2023



ChEESE-2P



Code audit status at October 2023

- ❖ LUMI: ready to start when LUMI is up (Nov. 7).
- ❖ MOGON II (local HPC machine @ Mainz): tested successfully mpiP, were not successful with installing extrae.
- ❖ Machine(s) used for the code audit: (will be using LUMI-C)
- ❖ POP tools used: mpiP, extrae.
 - ❖ Code version LaMEM 2.1.1 (PETSC 3.18.5 MPI).
 - ❖ Issues to be solved and/or issues solved: Need more instructions on running from batch (for multi-node).
 - ❖ Had initial consultation with Jose.
 - ❖ Model setup with real data and volcano topography chosen for test/benchmark case (currently being refined using MOGON2)



T2.2 status at October 2023

- ❑ T2.2 workplan status in: not available yet.
- ❑ Development team formed. Representative from LaMEM: Anton Popov; representative from CIN: Piero Lanucara.
- ❑ Porting to GPU is planned: using PETSC with GPU programming model *kokkos*.
 - *kokkos* offers great portability for two major GPU vendors (NVIDIA and AMD); recommended PETSc approach
 - Porting has not started yet
- ❑ Porting strategy: test GPU portability first with the energy solver; next step is to extend that for Stokes

