

Case I: $k_r = k_s / k_f = 0.1$

- Performance of 242 x 242 nodes, **double precision**, writing same data and VTK files

- CPU:

- AMD RyzenTM 7 7840HS (Zen 4)
- 8 cores 2 threads (16 logical CPUs)
- 32 GiB RAM
- 3.2 GHz nominal, 4.75 GHz peak
- Cache: 16 MB L3 cache

71.54 MLUPS

- Cluster; AMD EPYC 7742 (Zen 2)
- 64-core
- 2.25 GHz nominal, 3.4 GHz peak
- Cache: 256 MB L3 cache

236.1 MLUPS

- GPU:

- 1 x NVIDIA RTX 4090 (Ampere)
- CUDA Cores: 16,384
- 1.8 GHz nominal, 2.5 Ghz peak
- 24 GiB RAM

865 MLUPS

Performance increase for larger domains:

2420 x 2420:

1'467 MLUPS