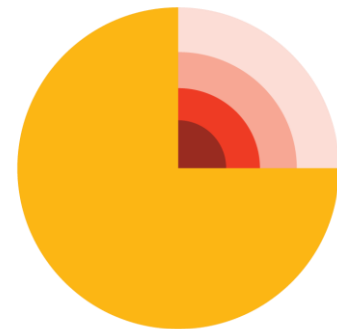


Short summary

- The following slides outlines required reporting on remaining WP2 effort and possible requests for support from CINECA. It also summarizes updated and planned work, including new performance-portability campaigns, pending improvements from Task T2.3, code-porting activities, and the integration of TALP into performance-monitoring workflows. Additional updates cover ongoing and planned TALP development and its porting to different GPU architectures.



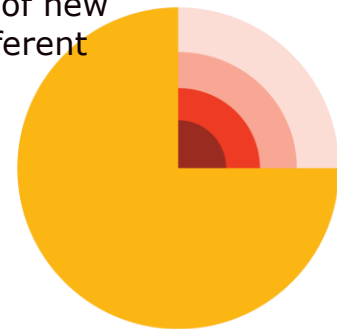
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Codes updates (code owners)

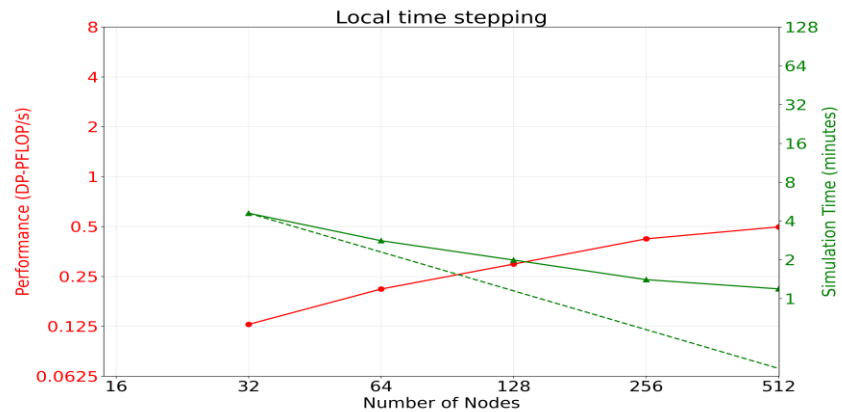
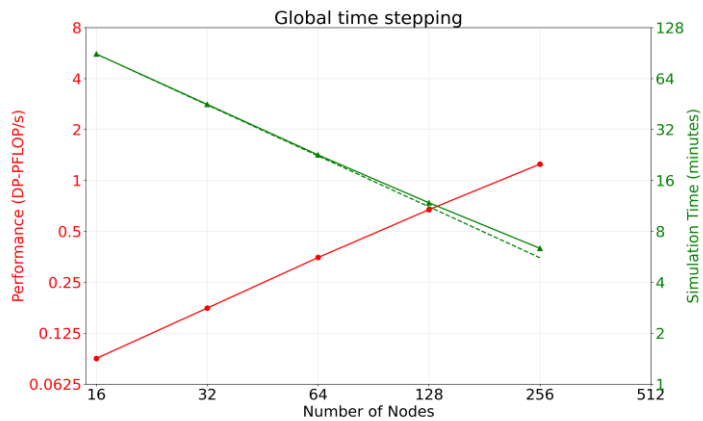
- **Updated results (if any)**

- **New performance portability campaigns** (in the presence of new hardware and/or new mini-apps or existing mini-apps with different flavors)
 - Frontier plot in slide 3
 - Vista plot in slide 4
 - SuperMUC NG Phase 2 plot in slide 5
 - LUMI-G plot in slide 6
- **Improvements**
 - GPU sparsity/codegen improvements on Hopper ~ 40% improvements → order 6, single precision, tpv5.



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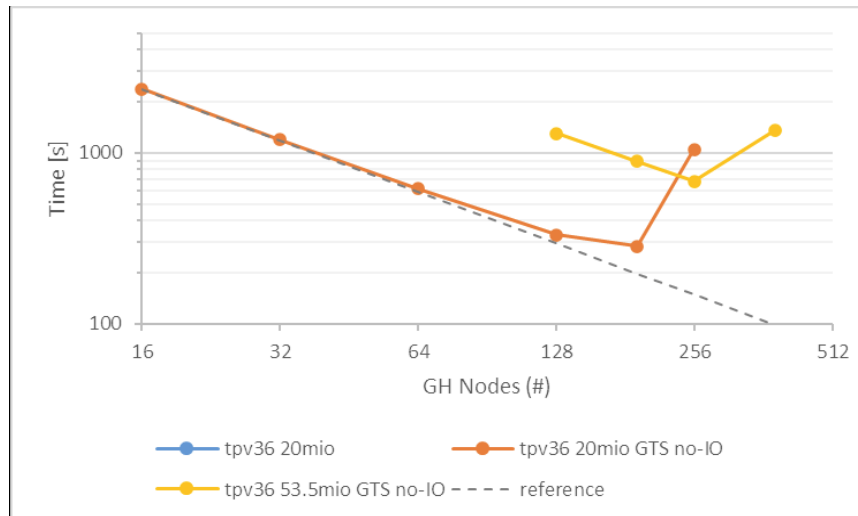
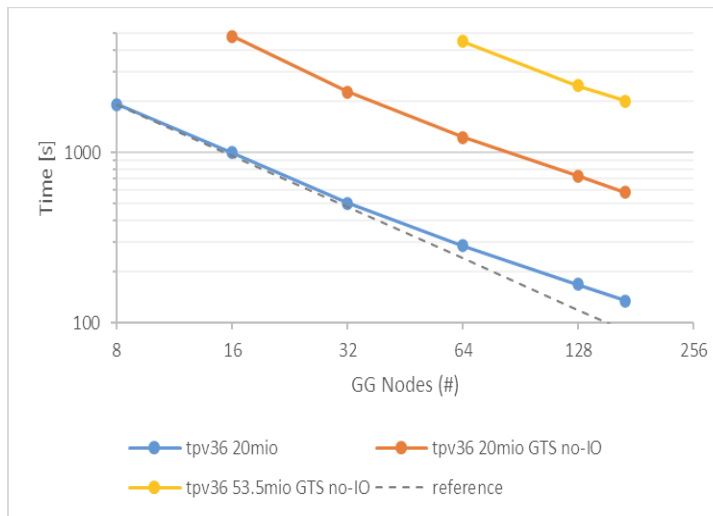




**Frontier- Turkey simulation, Order 6,
175 million elements**

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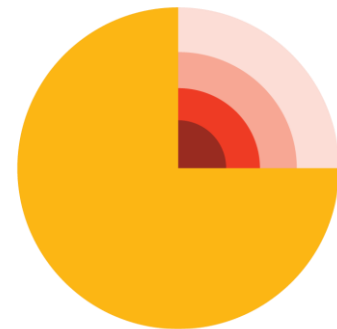
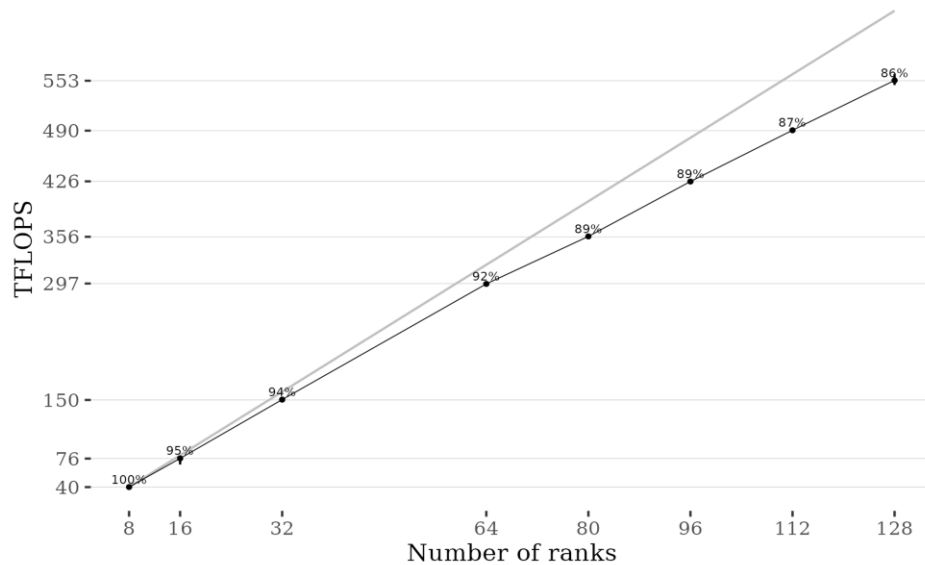




Vista TACC, Order 6

Source: Ian Wang

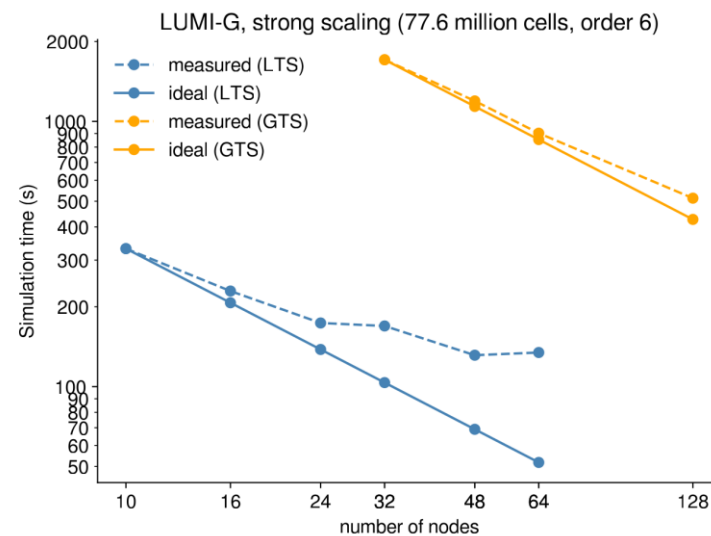
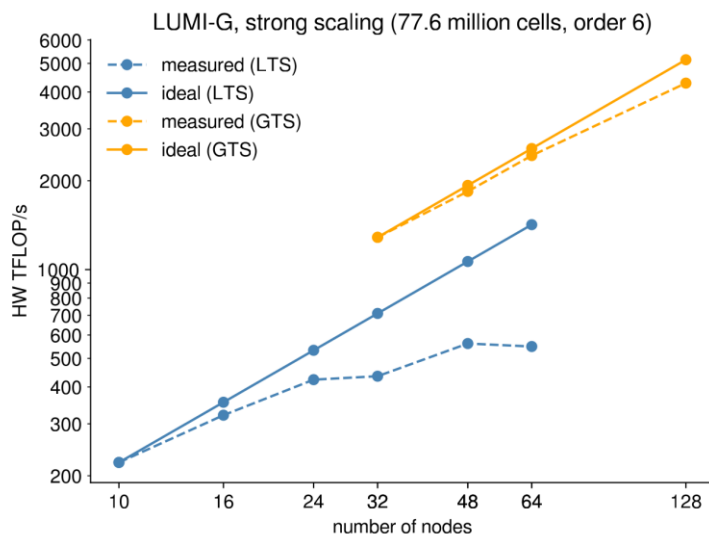




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Intel PVC SuperMUC NG Phase2, Nordridge, 20 Million Elements, Order 6, source: Carsten Uphoff, 5 TFLOPs/tile





LUMI-G, Turkey Scenario



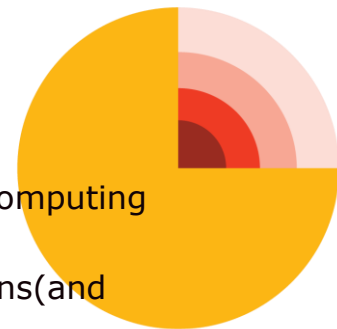
Codes updates to come (code owners)

- **Mandatory section**

- No new projects planned for WP2

- **Planned updates (if any)**

- Continue to test and establish performance on various supercomputing platforms(NVIDIA; AMD; Intel)
- Continue to test and establish performance of fused simulations(and respective kernels)
- Porting of poroelasticity kernels for GPUs
- Estimate 3-6 PM
- No idea whether TALP could help us

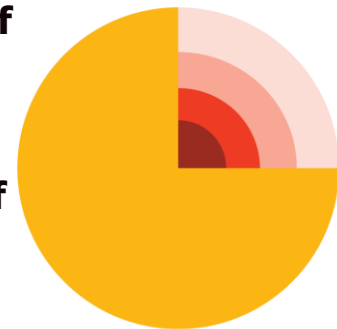


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TALP updates (BSC)

- **Updated TALP-based performance monitoring stuff**
 - Development of TALP
 - Porting to various GPU flavors
- **Planned TALP-based performance monitoring stuff**
 - Development of TALP
 - Porting to various GPU flavors



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