

$$-\Delta u = 1 \quad \text{on unit cube, with DBC}$$

Solver/preconditioner settings

- AMG as preconditioner of CG, stopped when $\|\mathbf{r}^k\|_2 / \|\mathbf{b}\|_2 \leq 10^{-7}$, or $itmax = 500$
VSMATCH V-cycle for matching-based coarsening with aggregates of max size 8, smoothed prolongators
- coarsest matrix size $n_c \leq 200np$, with np number of tasks (GPUs)
- ℓ_1 -Jacobi iterations, quasi-opt. 4th-kind Cheb., approximate opt. 4th-kind Chebyshev and quasi opt. 1st-kind Cheb. accelerations; 30 iterations of ℓ_1 -Jacobi at the coarsest level.

Platform: Leonardo booster, ranked 6th in the last Top500 list (BullSequana XH2000, Xeon Platinum 8358 32C 2.6GHz, NVIDIA A100 SXM4 64 GB, Quad-rail NVIDIA HDR100 Infiniband)