

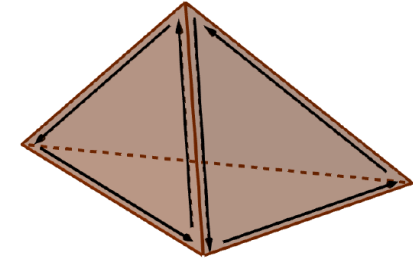
# A-002 & Istanbul Technical University

- Flow solver:HEMLAB
- Spatial discretization:Vertex based finite volume method
- Time integration or iteration method: Euler implicit with PETSc-SNES
- Name of committee grids (or “self-prepared”): Self-prepared adaptive
- Cases submitted: Case1 and Case 2.2
- Initialization method: Alpha continuation method
- Remesher:INRIA pyAMG library
- Turbulence model:Negative Spalart-Allmaras (second-order SA-neg-noft2)
- Convergence/stopping criteria: 100 Newton iterations
- Metric construction: Multiscale with L2 and L4 norms. Distance, Mach and Mach+Distance sensors.
- Relevant publications related to solver, remesher, and/or high-lift applications

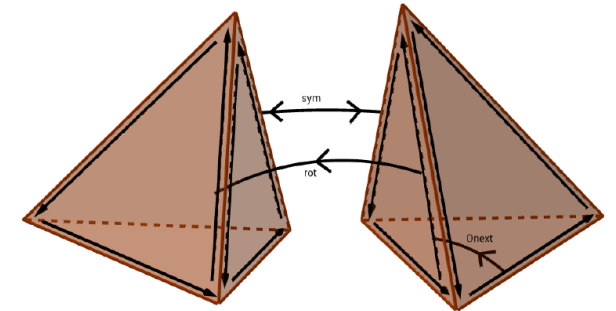
International Journal for Numerical Methods in Fluids, 2022, 94:13–31.

AIAA SciTech 2021 Forum, 2021, AIAA Paper 2021-1994.

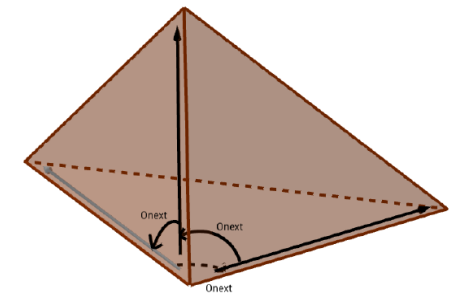
AIAA Aviation 2022 Forum, 2022, AIAA Paper 2022-3809.



Edge-based data structure



Sym and rot pointers



Onext pointer