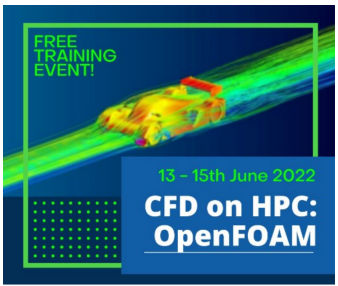
OpenFOAM School – Module 03

Advanced usage



EuroCC workshop

Aleksander GRM – May, 2024

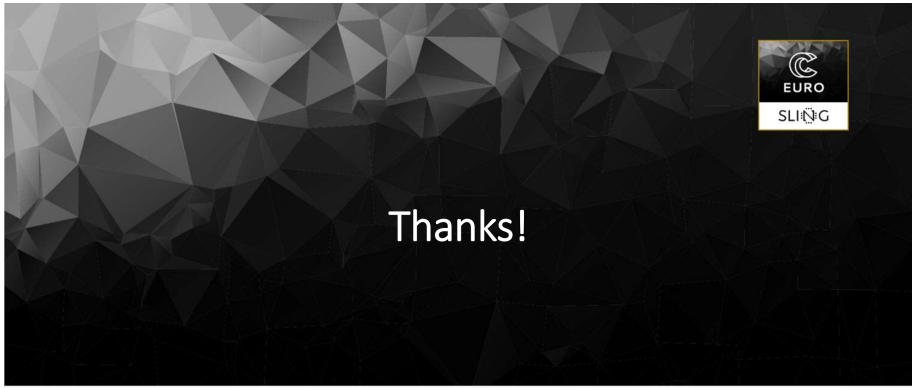
Content

Introduction

Foil case

- describe basic case philosophy
- describe two different meshing approaches
  - OpenFOAM foil `blockMesh`: change angle of attack with velocity vector rotation
  - GMSH foil `mesh`: change angle of attack with geometry rotation
- Describe two different solutions (OF module `foamRun`)
  - steady state – `SIMPLE` algorithm
  - transient – `PIMPLE` algorithm
- show mesh generation for different angles of attack (compare with fixed mesh),
- solution initialization with `potentialFoam` integrated in `foamRun`,
- compare solutions of the case for angle of attack 20° (turbulent and laminar solver).

Sponsorship



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