

CFD WITH OPENSOURCE SOFTWARE

A COURSE AT CHALMERS UNIVERSITY OF TECHNOLOGY
TAUGHT BY HÅKAN NILSSON

Comments to reviewer of:

A pimpleFoam tutorial for channel flow, with respect to different LES models.

Author:
OLLE PENTTINEN

Reviewer:
EHSAN YASARI

November 4, 2011

General comments

The author would like to thank the reviewer for constructive feedback. Regarding the reviewer's general comments, a table of content has been added to the beginning of the document. Spelling mistakes have been corrected according to the suggestions of the reviewer. The advice to use upper-case letters in the beginning of titles has been followed, except in Section 3.2 and 3.3, since those titles start with the names of the turbulence models oneEqEddy and kOmegaSSTAS. Those names start with lower-case letters, hence formatting is kept unchanged. Below, comments for different sections of the report are given.

2.2.1 Meshing - Non working solution

A "." has been added to the end of each item in the lists according to comments of the reviewer.

2.2.2 Meshing - Working solution

A reference to the case files was asked for. The reader is hereby recommended to download the case from the course home page.

2.4 Post-processing

The reviewer had indicated a typo in: "Here a disitinct difference is **notized** between the two models." by coloring the word "notized" red. Instead, the sentence was changed to: "Here the two models clearly show different results."

Reviewer asked for a better explanation of the van Driest damping. This part of the report has been changed. Section 2.5 has been added, which explains the reduction of the near wall eddy viscosity more thoroughly.

3.1 Smagorinsky

Address of `Smagorinsky.H` has been added. Also a more thorough explanation of the Smagorinsky turbulence model has been added. It could probably be extended even further, but the author believes these changes are sufficient for this report.

3.2 oneEqEddy

Similar changes as in Chapter 3.1 have been performed here. However, variables and functions which are identical for the two models are not described again.