list

July 23, 2017

1

dnsmst_utilities/src/serial/Average/
add parallel version for time average code

2

dnsmst_utilities/src/serial/Postprocessing/volume/volume_HDF5/
add parallel version for volume code

3

dnsmst_utilities/src/serial/Postprocessing/p3d2HDF5/
add parallel version for the format conversion code

4

Virtual Dataset (VDS) HDF5
Create virtual dataset using HDF5 format

5

Compressed Dataset HDF5
Create compressed dataset using HDF5 format

6

dnsmst_utilities/src/serial/common/modRWHDF5.f90

Create module file to read and write HDF5 data using Matlab

7

PDF (probability density function) of wall pressure fluctuation.

Reference: Tsuji et al. [1]

8

Add bottom BC reading 4 k-plane timeseries data.

1) Generate the 4-iplane or 4-kplane timeseries data.

In deck3d.inp, turn on PlaneseriesSave, the file modSaveInflowPlanes.f90 will generate the 4-iplane data or 4-kplane data. Please check the output data.

2) Read the 4-iplane timeseries data.

In deck3d.inp, set inletbc=1 and inletdatatype=3, the file planeinlet.inp should also be provided.

Please check the following case for how to read the 4-iplane timeseries data. /share/duan/czb58/test_DNS/Test_cases/Test_ShockNoise_2016-10-10_largeZ_4p5/

References

[1] Tsuji, Y., Fransson, J. H., Alfredsson, P. H., and Johansson, A. V., "Pressure statistics and their scaling in high-Reynolds-number turbulent boundary layers," *Journal of Fluid Mechanics*, Vol. 585, 2007, pp. 1–40.