Homework 4

CSC9005 : Data Visualization
May 9, 2020

1 Question 1

- In this assignment, you are provided a ScivisContest 2018 dataset. You can download the data here. This is one time step of the deep water impact asteroid simulation data and the .vti file contains 4 data arrays, "prs", "tev", "v02", "v03". The definition of the four data arrays are explained here.

- Use Paraview to visualize the dataset and submit screenshots via Moodle.

- Visualize "tev" and "v02" data arrays of the dataset by slicing, isosurface and direct volume rendering. The slices of the data are set on x-y plane perpendicular to z axis. The isovalue of "tev" and "v02" are set to 0.2 and 0.1, respectively. Volume rendering of "tev" and "v02" should be rendered by two different color maps. The opacity portion of the transfer function for "tev" should set higher scalar values to high opacity and lower scalar values to semi-transparency. The opacity portion of the transfer function for "v02" should be set to show the water clearly.

- The six views have to be shown in Paraview at the same time.

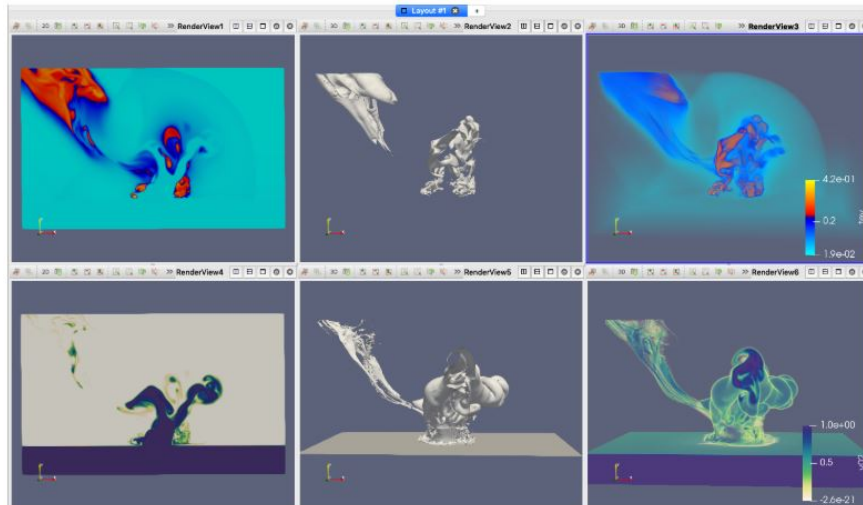- The following screenshot is an example (Note: you do not have to use same color maps in this example):

Figure 1: Example of homework 4.