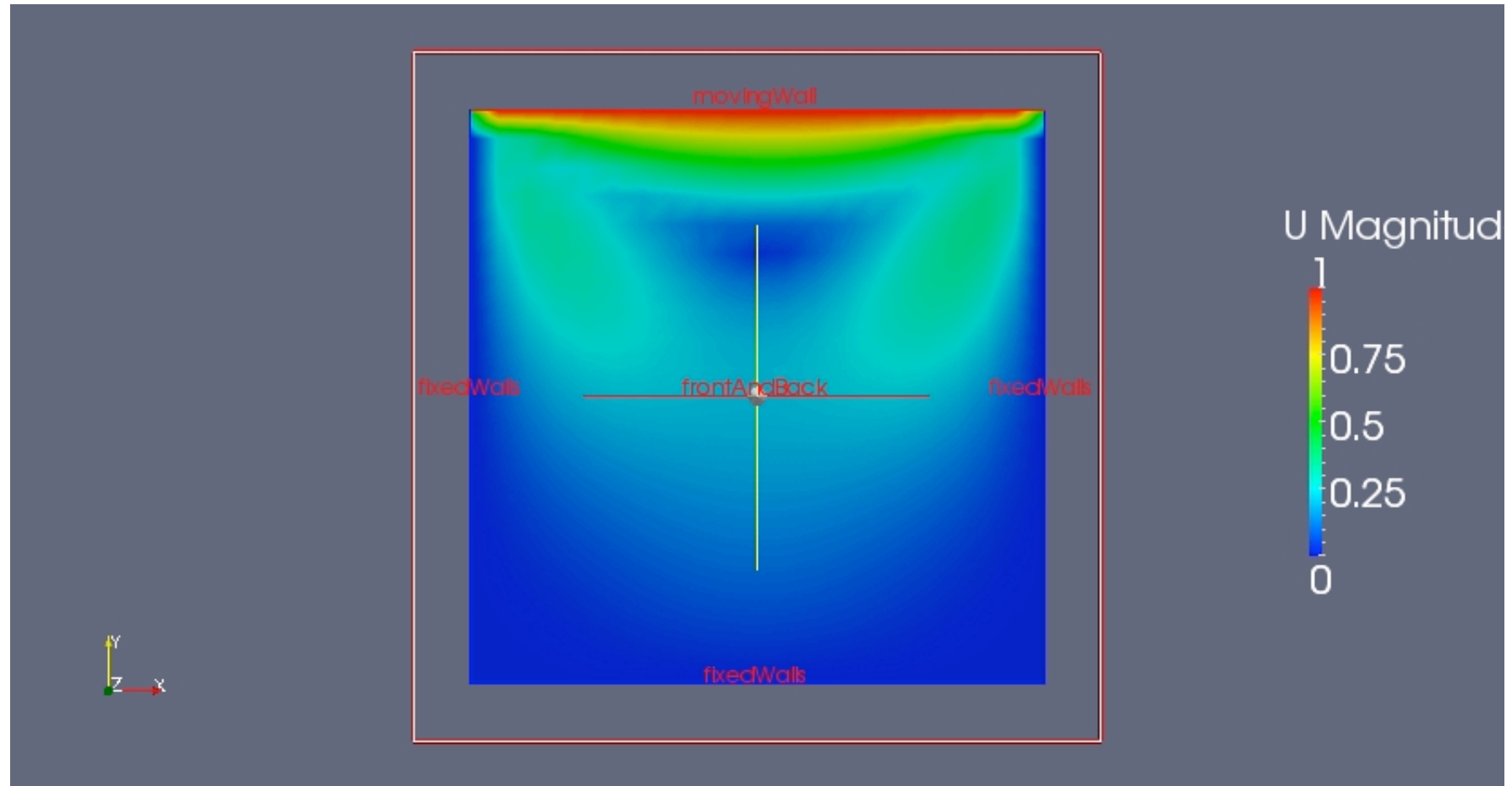


Assignment 1

TME 205

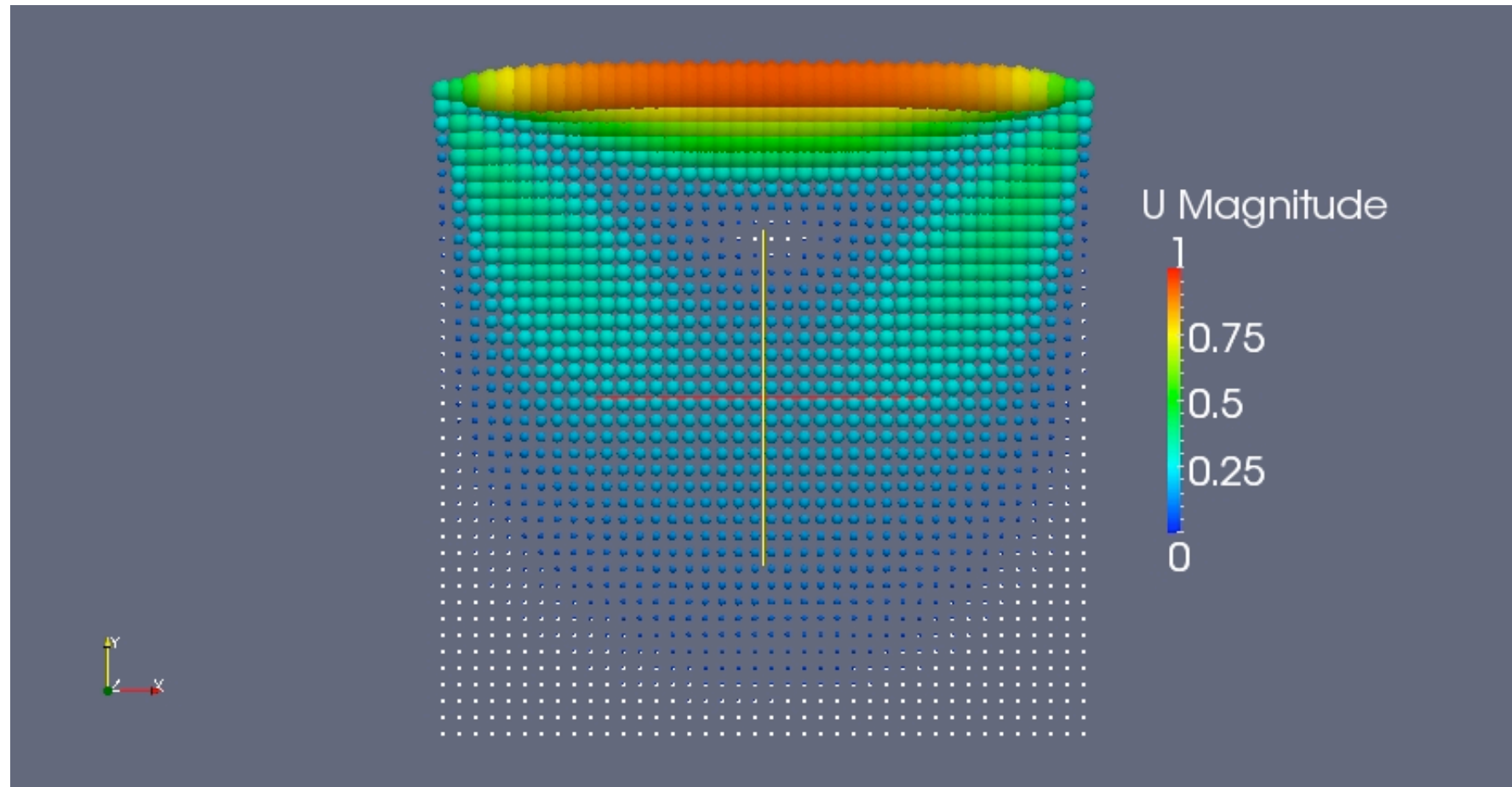
CFD with Open Source Software

Cavity Case



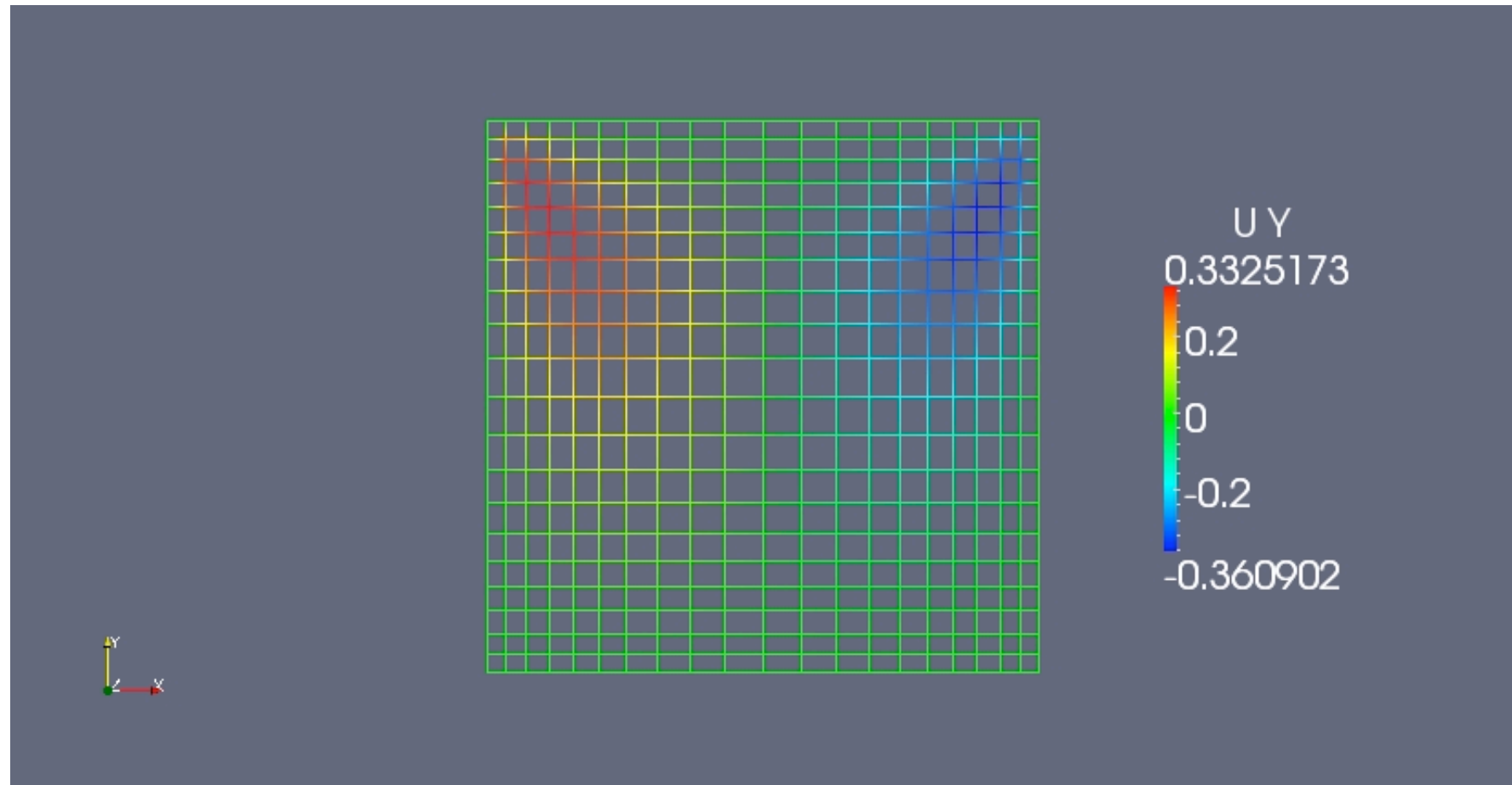
This picture above is the example of using the “clip” filter in ParaFoam. Before apply the filter, “patch name” is turn on so we can see the patch name.

Cavity Fine Case



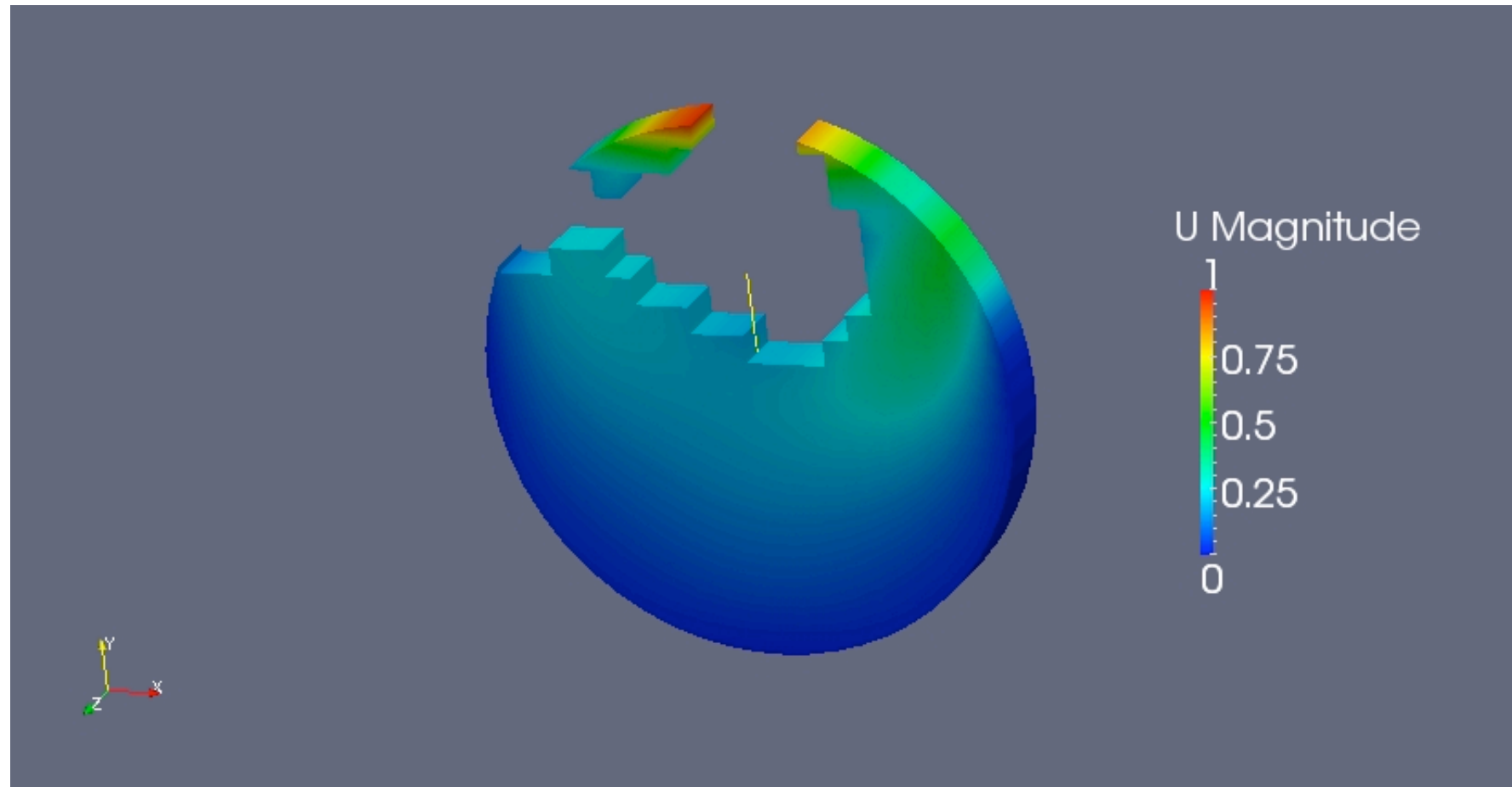
This picture above is the example of using “glyph” filter with “sphere” type in ParaFoam. It also use “cell center” filter with “vertex” turn on.

Cavity Grade Case



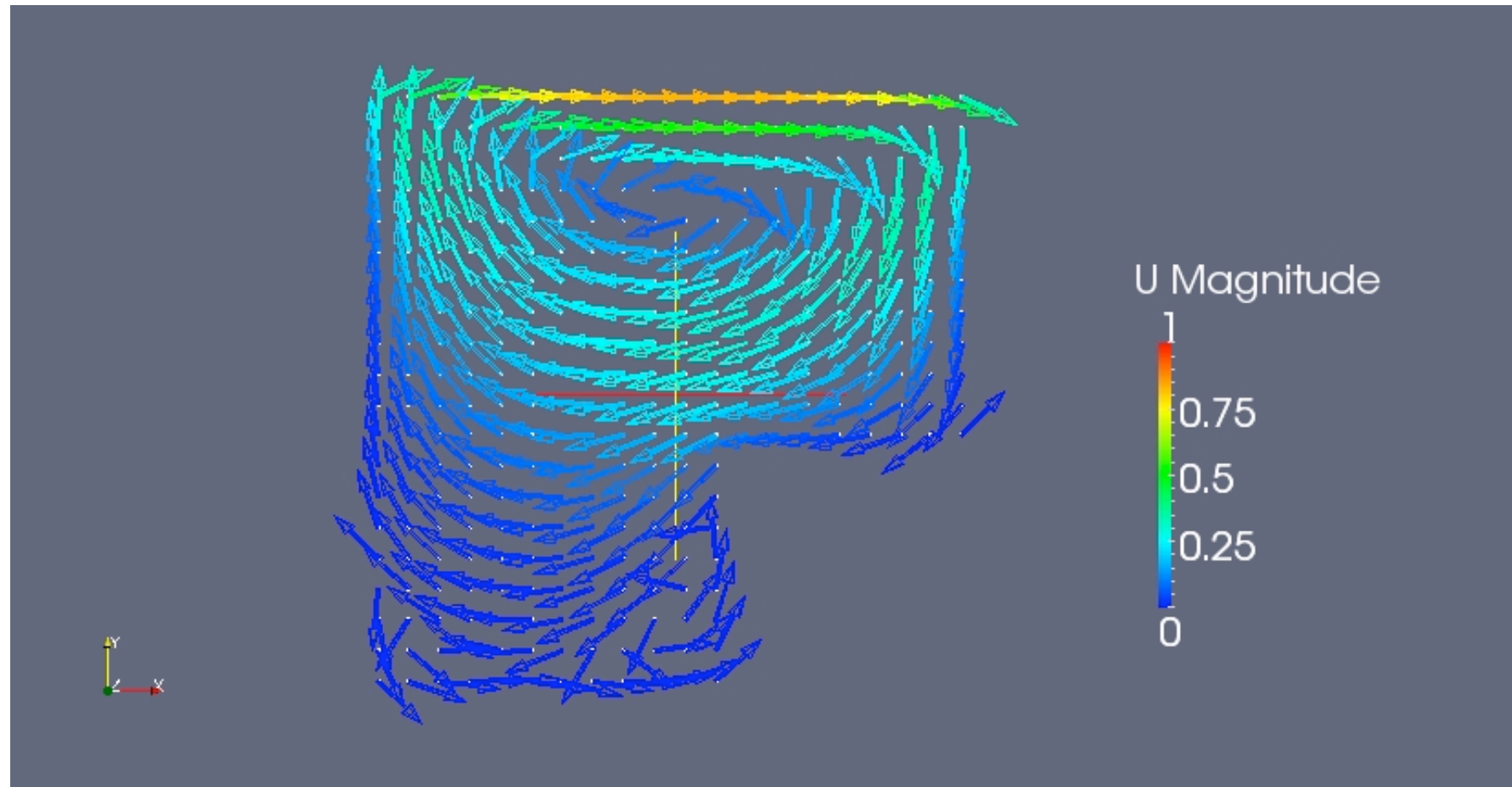
The picture above shows the “wireframe” display. It can be selected from the toolbar.

Cavity High Re Case



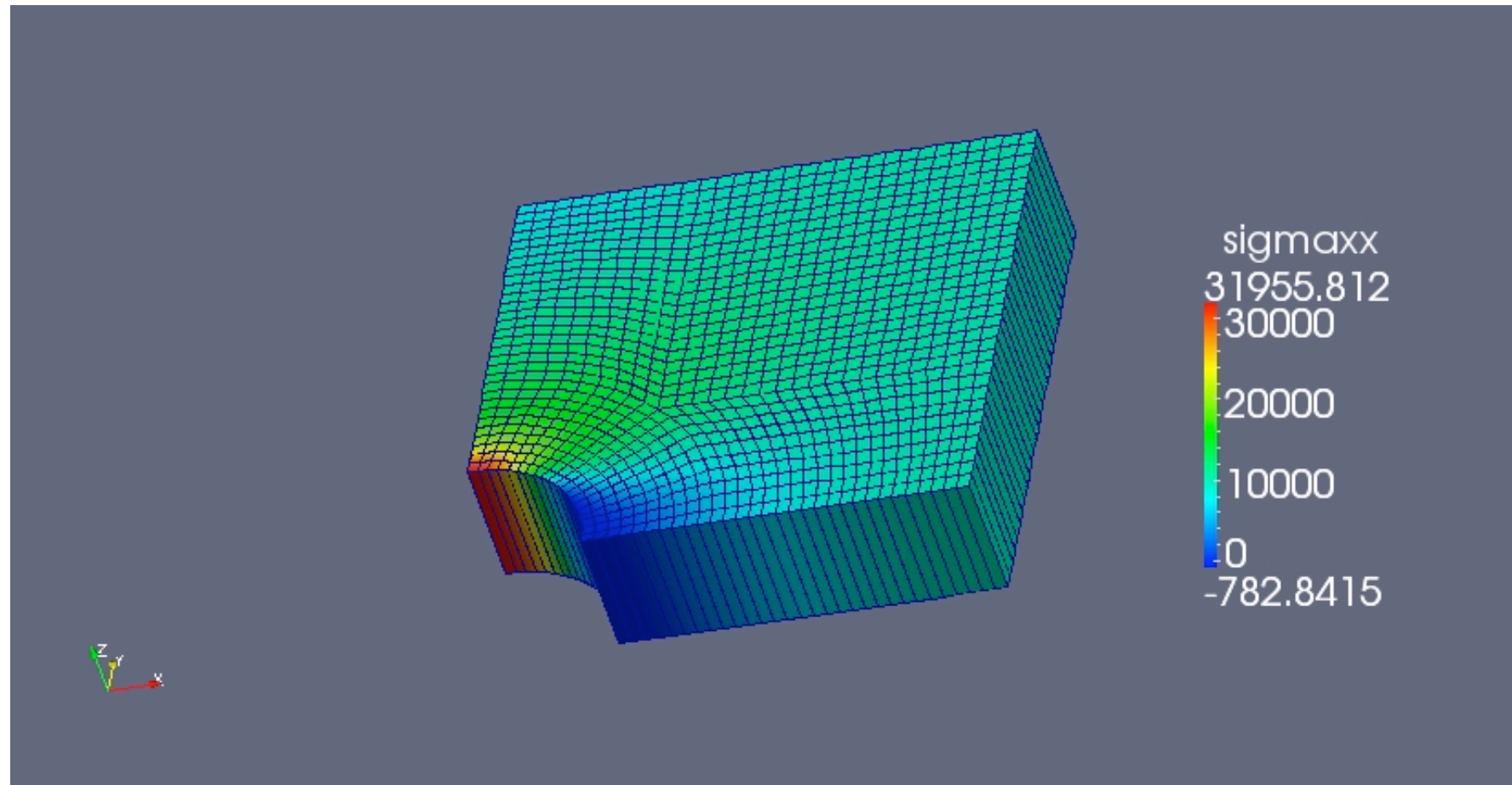
This picture above is the example of using “threshold” filter combine with “slice” filter “sphere” type, with “inside out” function turn on.

Cavity Clipped Case



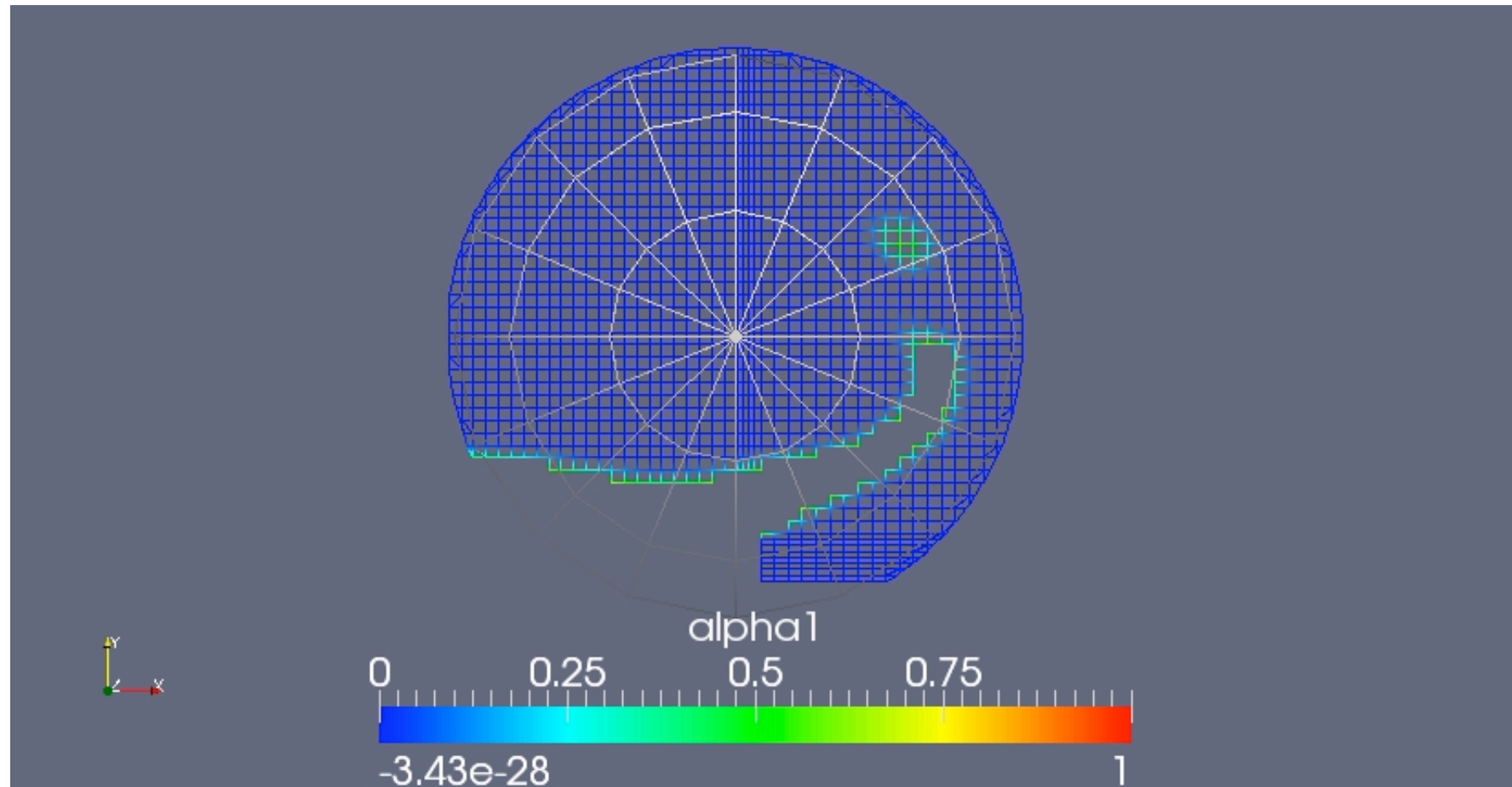
This case represents the usage of “glyph” filter “arrow” type and “cell center” filter.

Plate Hole Case



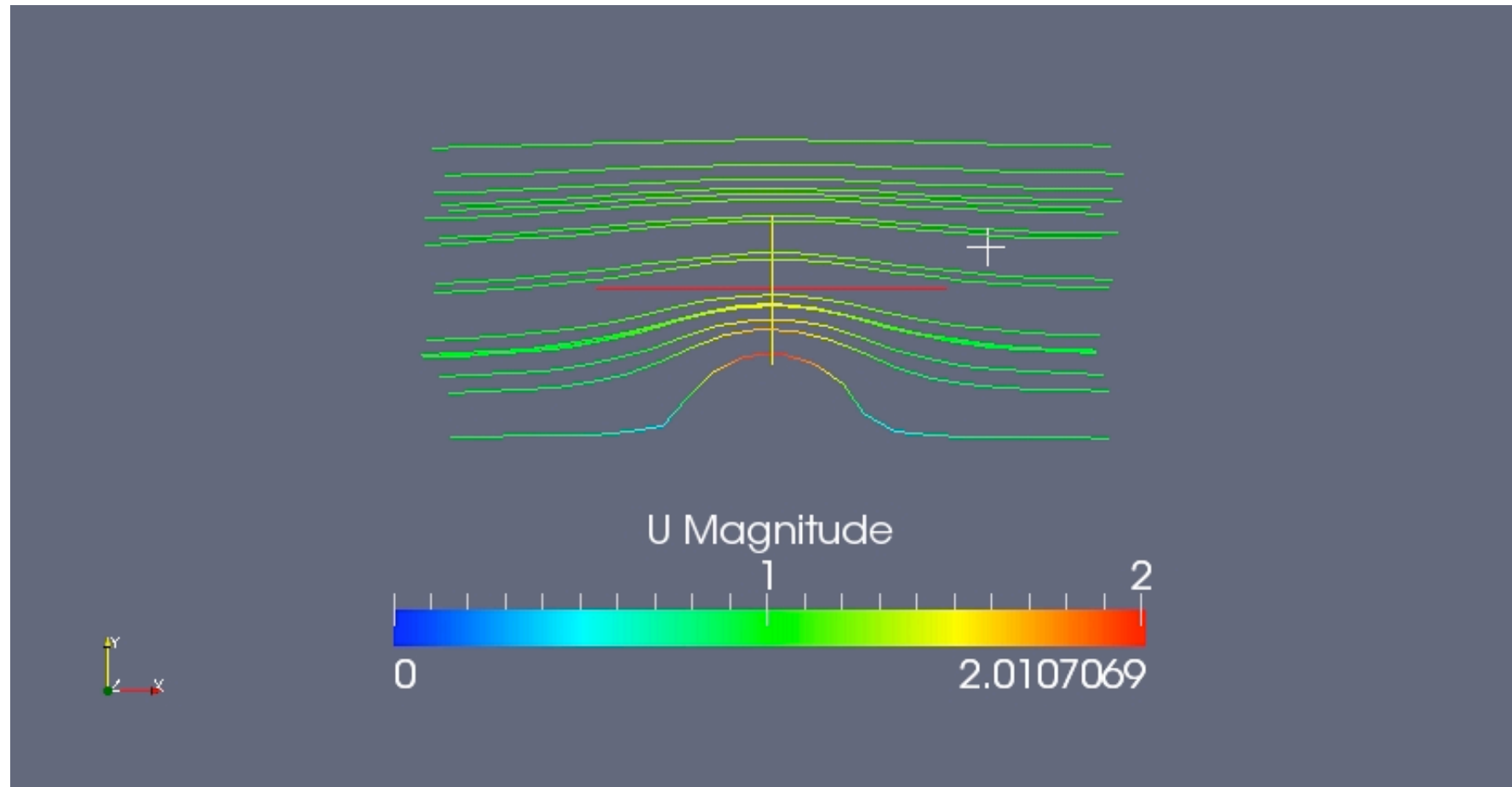
This is a “surface with edges” display of the sigma xx value.

Dam Break Case



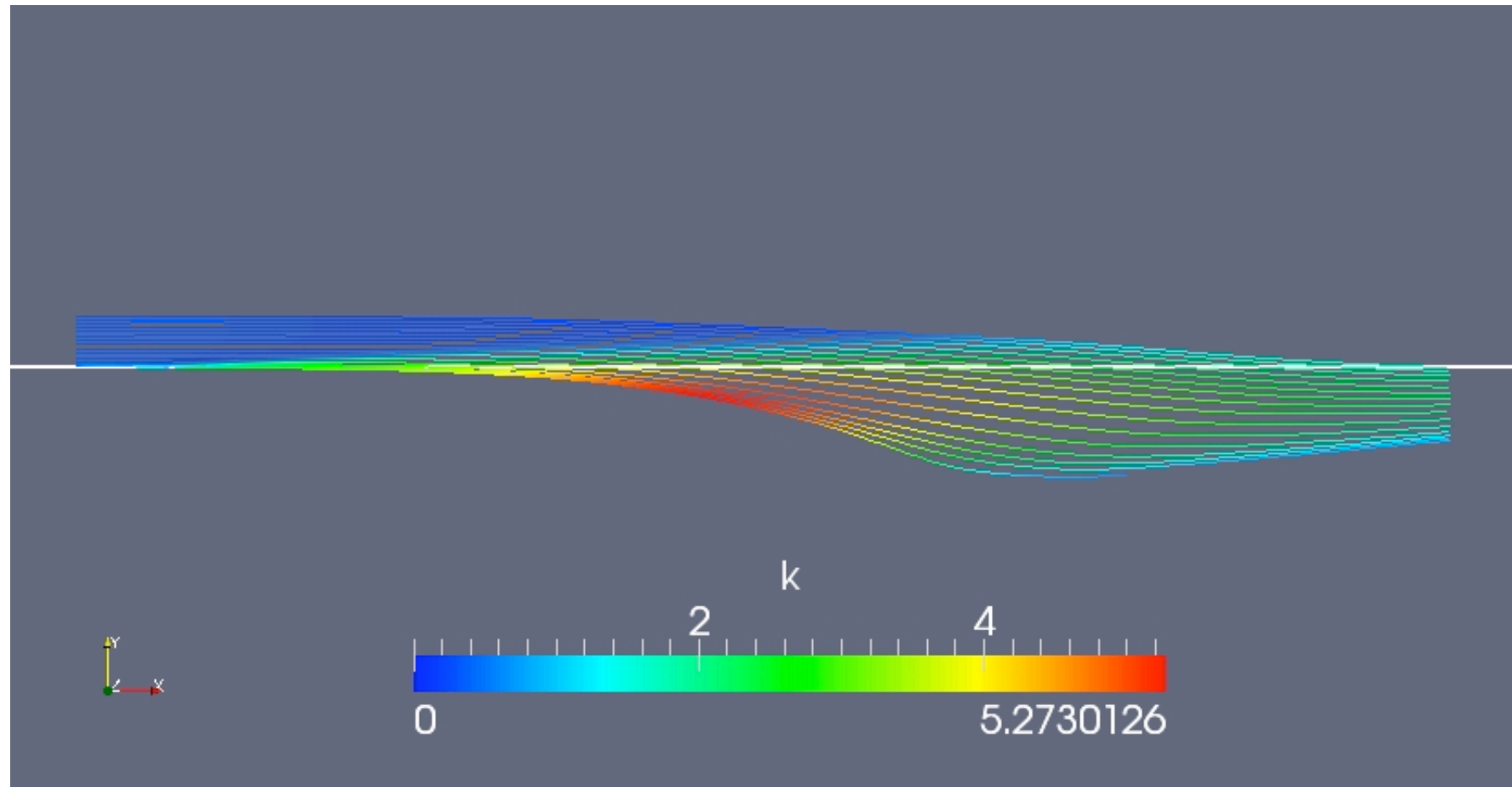
This picture shows the visualization in ParaFoam using “wireframe” display and “slice” filter “sphere” type and “threshold”.

Cylinder Case



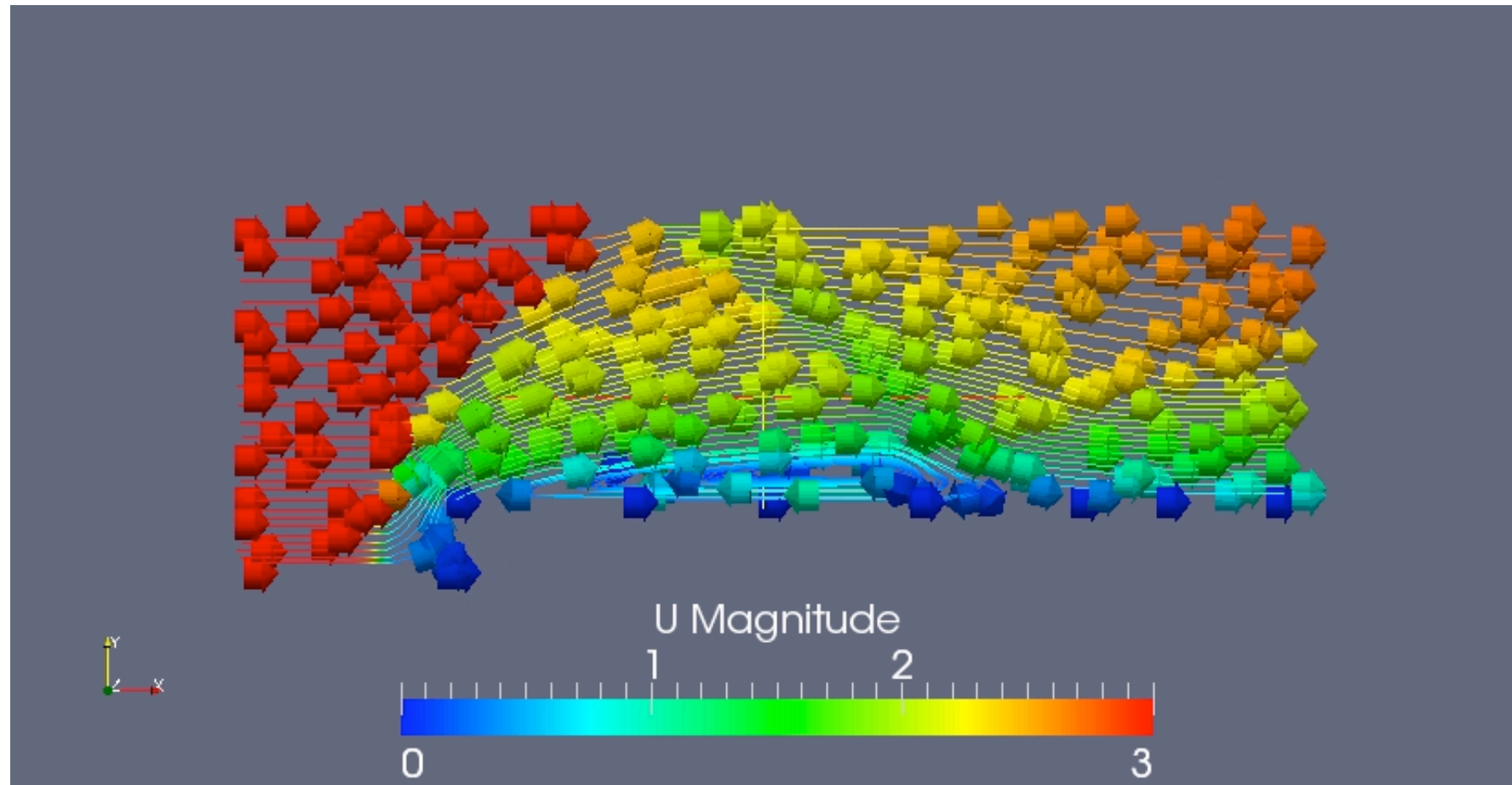
This visualization uses "streamtracer" filter.

Pitz Daily Case



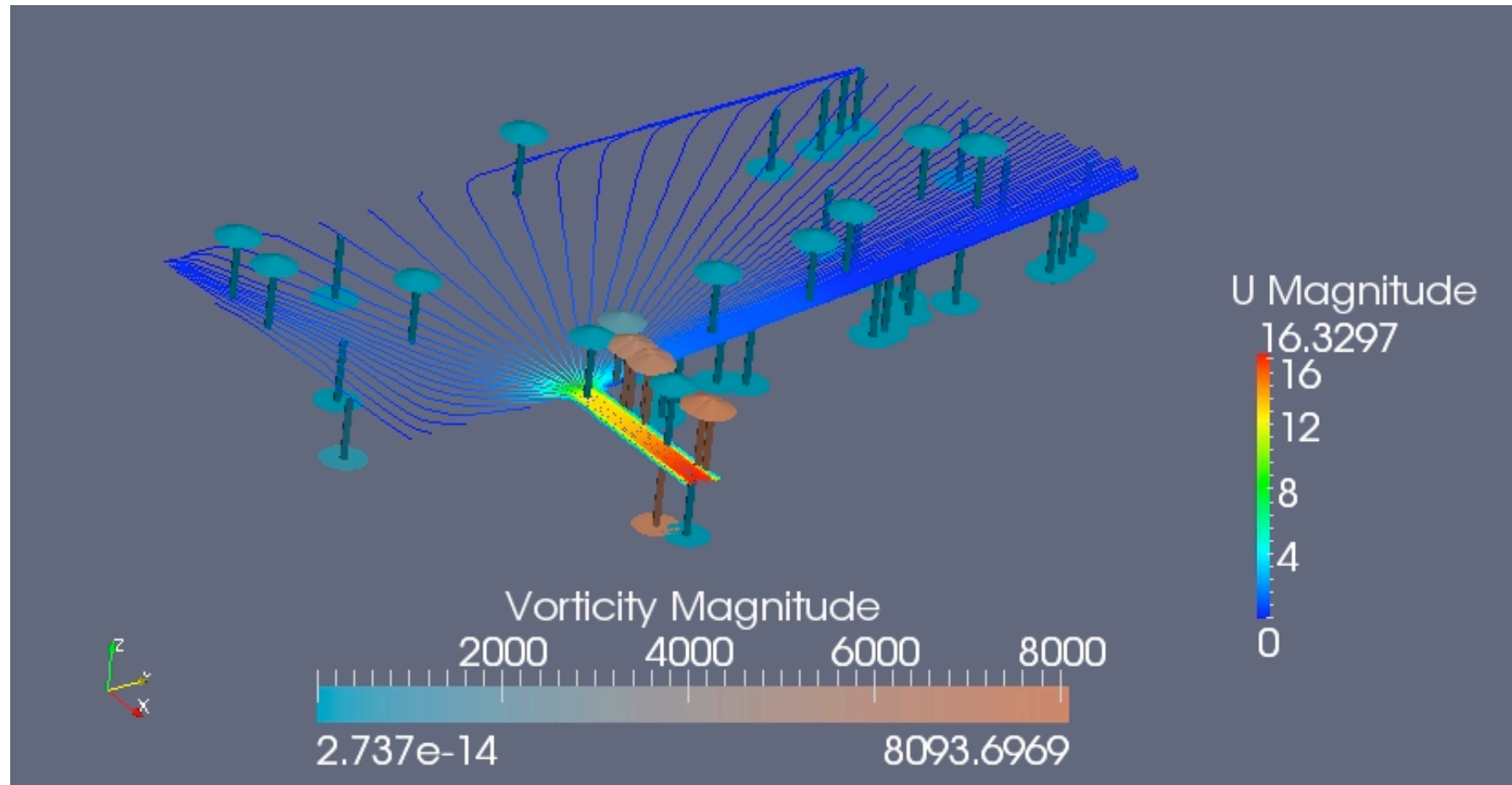
This visualization uses “streamtracer” filter.

Forward Step Case



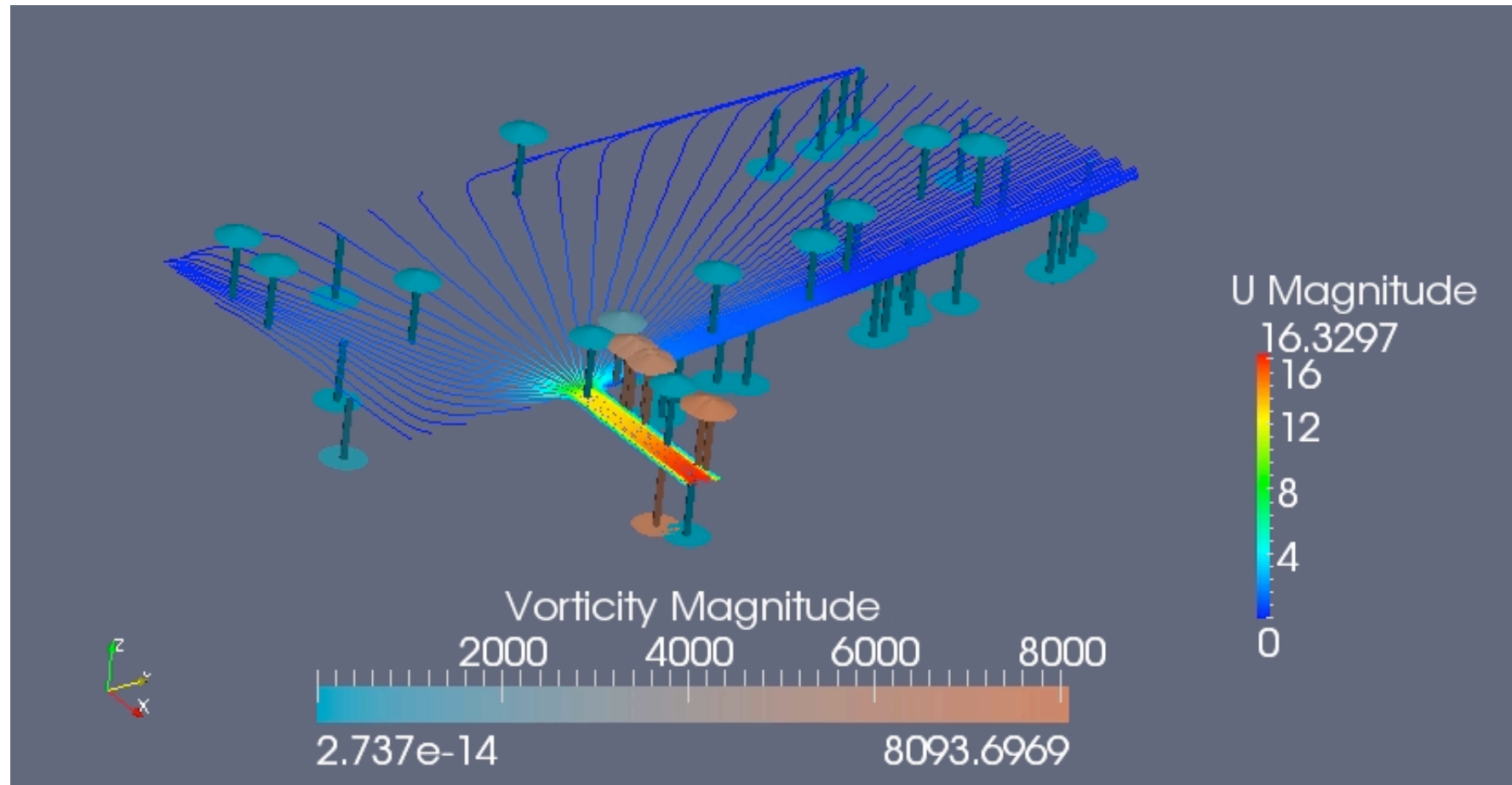
This visualization uses “streamtracer” and “glyph” filter.

Decompression Tank Case



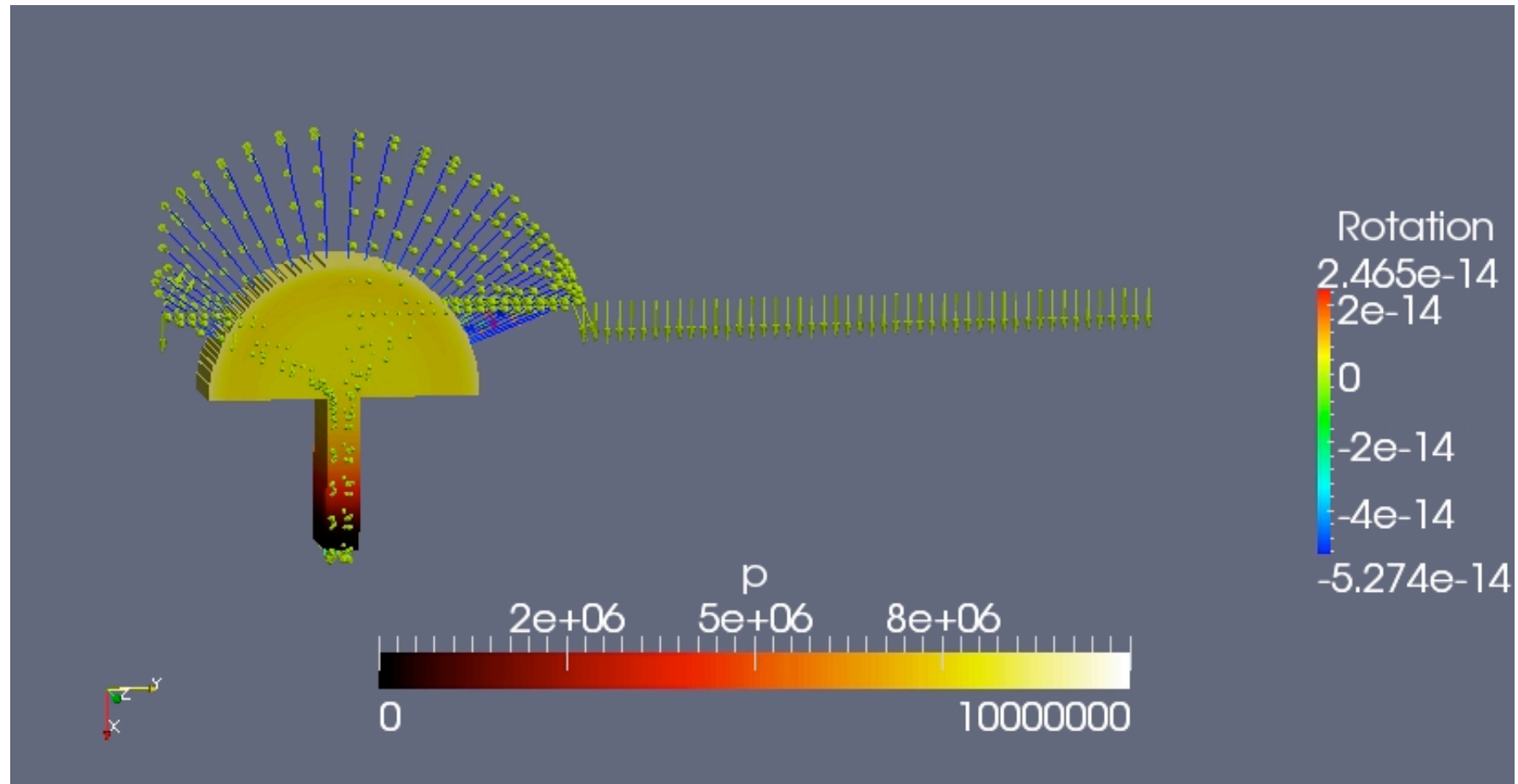
This picture above is visualized by using “streamtracer” and “glyph” filter “arrow” type.

Decompression Tank Case



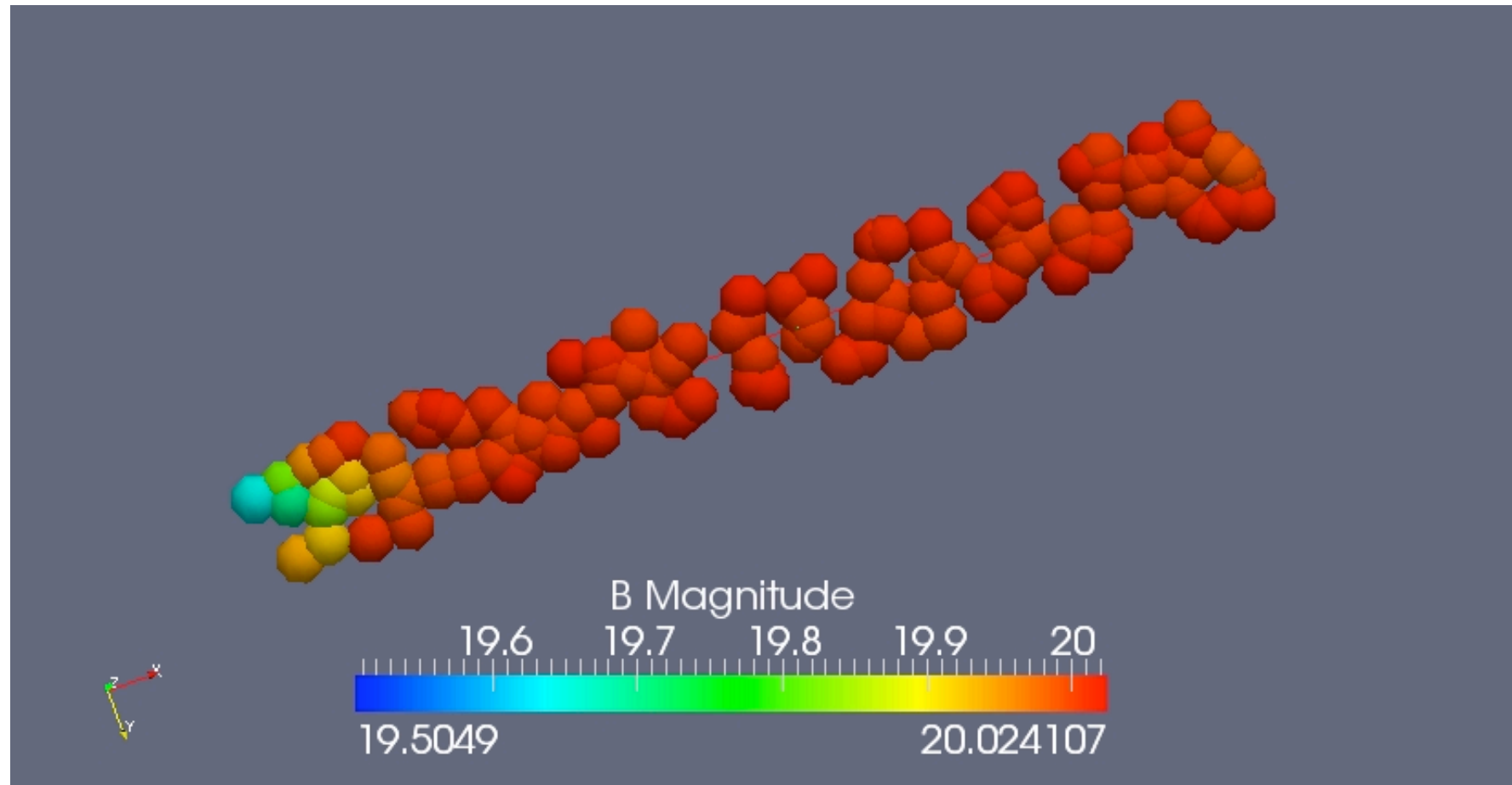
This picture above is visualized by using “streamtracer” and “glyph” filter “arrow” type.

Decompression Tank Fine Case



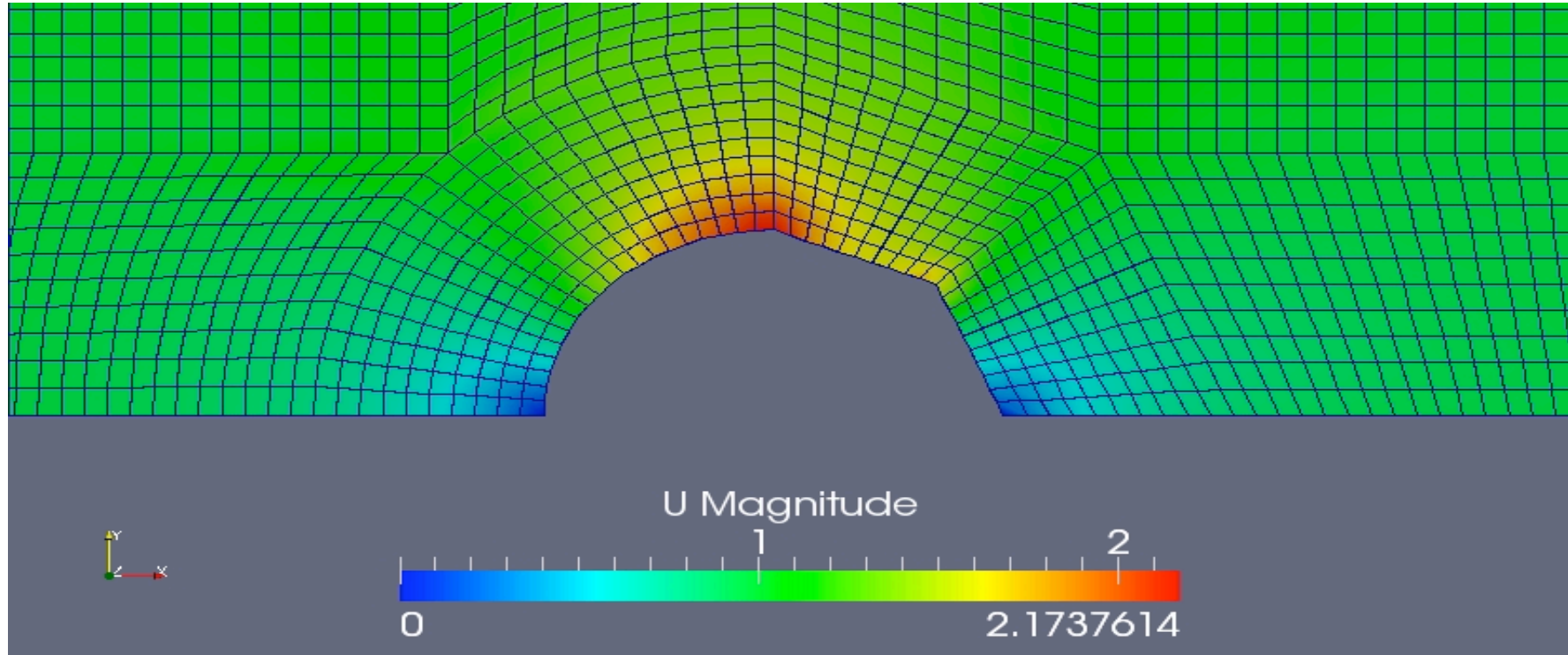
This visualization uses “threshold”, “streamtracer”, and “glyph” filter “arrow” type.

Decompression Tank Fine Case



This picture is visualized by using “glyph” filter “sphere” type.

Cylinder Modified Case



In this case the geometry of the cylinder has been changed. All the boundary conditions, the calculation, the scheme, and others are remain the same. The changes is simply delete the “arc” command for the back of the cylinder in *blockMeshdict* so the back of the cylinder is not arc but just simply a straight line.