

CIS 410/510: Project #8

Due March 1st, 2018 (meaning 6am March 2nd, 2018)

Worth 6% of your grade

Assignment:

1) Download file proj8.vtk

2) You will write a VTK program. The program should have one render window & 4 renderers, in a 2x2 layout.

a. Renderer #1 should cover viewpoint X:0->0.5, Y: 0->0.5. It should contain an isosurface of the variable hardyglobal with isovalues 2.5 and 5.0. You can color this however you like.

b. Renderer #2 should cover viewport X:->0.5, Y:0.5->1.0. It should contain two slices of the variable hardyglobal. It should use the rainbow colormap, which is the default colormap.

c. Renderer #3 should cover viewport X:0.5->1.0, Y:0->0.5. It should contain hedgehog glyphs of the variable grad. You can choose the density and colors

d. Renderer #4 should cover viewport X:0.5->1.0, Y:0.5->1.0. It should contain streamlines of the variable grad. Use RK4 for integration. The seed locations should be in a line from (-9, 0, 0) to (9, 0, 0). There should be 19 total seeds, meaning they should cover each integer.

3) Upload your source code and a screenshot of it working to Canvas. Do not upload CMake files, data files, etc. Just two files (no tarball).