CFD Lab: Final Project

3D Navier Stokes Code for Arbitrary Geometries

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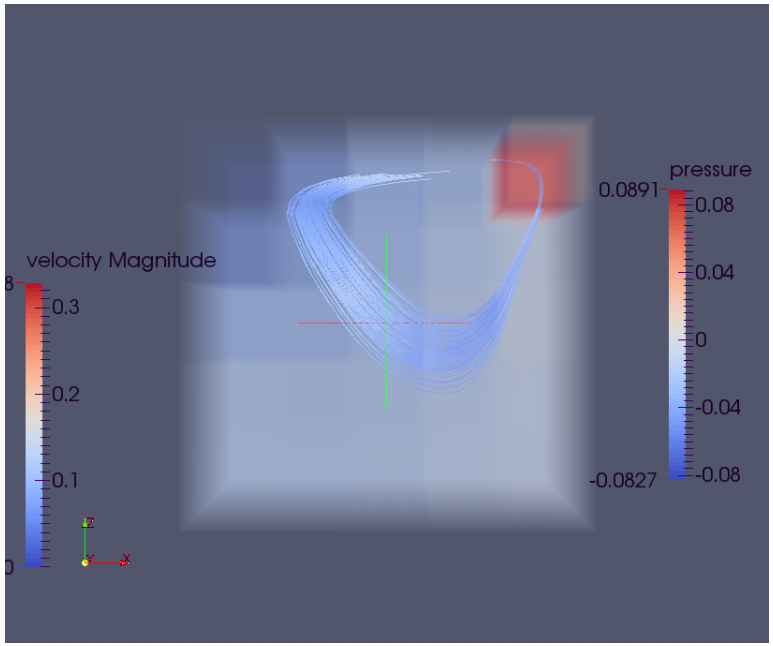
Project Topic

- 3D Navier Stokes for arbitrary geometries
- (TO BE DETERMINED) Free Surface Flow



Implementation

Theory

	Palabos	**OpenLB**	**LBSim**	**SailFish**	**LB3D**
Language	C++ (Java, Python)	C++	C++	Python	Fortran90
Visualiz.	ASCII, gif	vtk	OpenGL	numpy, vtk	XDR

Implementation

Problems

blablablablabblalalablbablalalalabla

Title

Subtitle

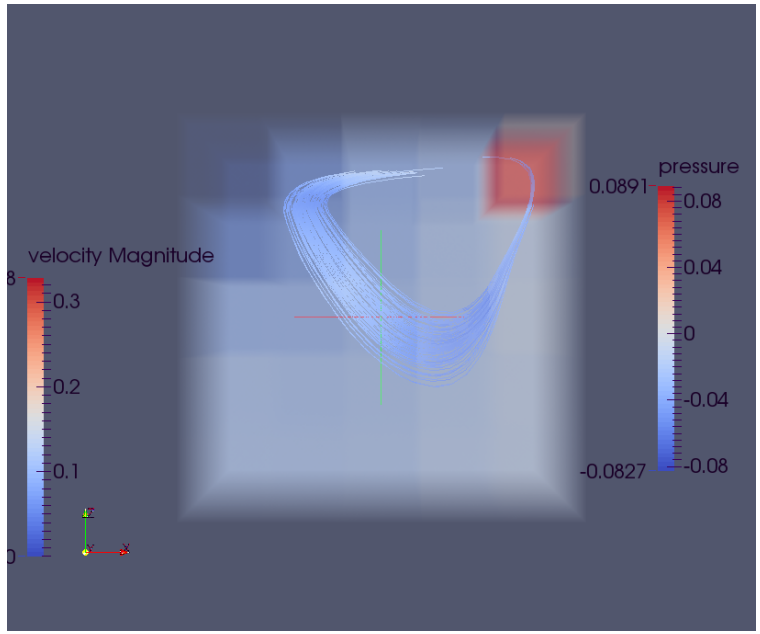
- first
- second
  - second sub 1
  - second sub 2
- own third

Important: Something.

Parameters used for the simulation: alalalalala

Results:

one	5.217 s
two	6.999 s
three	5.522 s



Some links

Palabos

- Dam Break (free-surface flows):
  `http://www.palabos.org/gallery/multi-phase-free-surface-flow/23-dam-break`
- Volcanic Eruption
  `http://www.palabos.org/gallery/incompressible-isothermal-flow/22-volcanic-eruption`
- Rayleigh-Taylor Instability:
  `http://www.palabos.org/gallery/incompressible-isothermal-flow/43-rayleigh-taylor-instability`

Conclusion and Further Development

have to do moro work obviously :D