Flow over a Flat plate using OpenFOAM

Talk to a Teacher

http://spoken-tutorial.org

National Mission on Education through ICT

http://sakshat.ac.in

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Learning Objectives

- **Geometry of flat plate**

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- **Changing the grid spacing in meshing**

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- **Visualizing using Vector plot**

System Requirement

- **Linux Operating System Ubuntu version 12.04**

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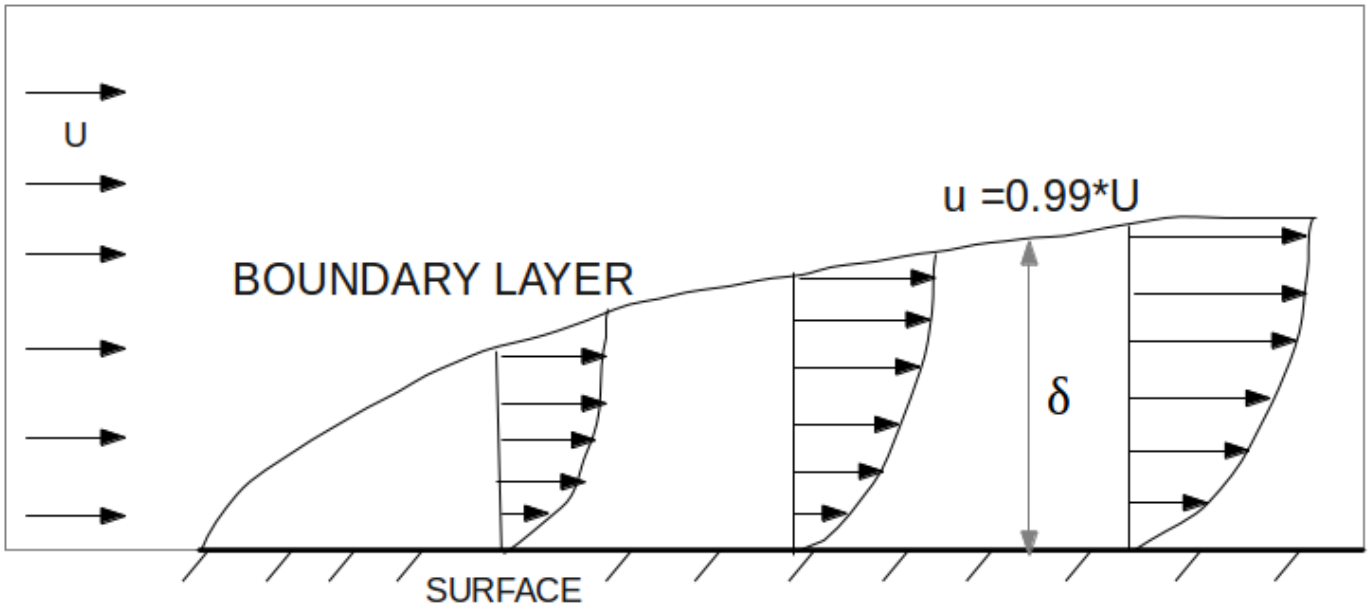
- **ParaView version 3.12.0**

About Flow over flat plate

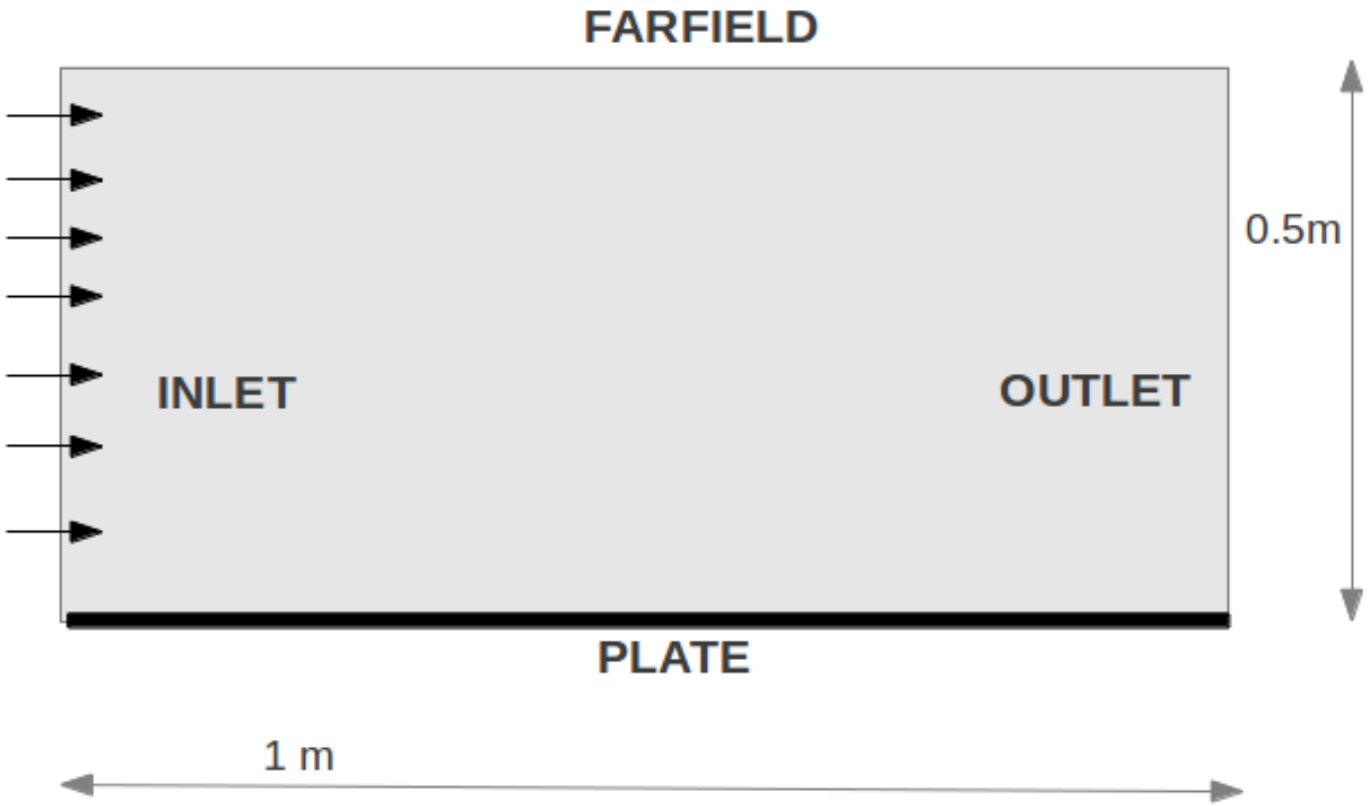
- **Fundamental problem in fluid mechanics**

Flow over Flat Plate



δ - Boundary layer height

Boundary conditions



Inlet parameters

- **Free stream velocity, U= 1m/s**

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- **We are solving this for a Reynolds no, Re = 100**

Solver

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  - **Steady state Solver for Incompressible**

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  - **and turbulent flows**

Summary

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  - **Gemetry and meshing of flat plate geometry**

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Summary

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  - **Gemetry and meshing of flat plate geometry**
  - **Vector plotting in paraview**

Assignment

- **Change the grid size as well as grid spacing**

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Assignment

- **Change the grid size as well as grid spacing**
- **Visualise using vector plots**

About the Spoken Tutorial Project

- **Watch the video available at**

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- **It summarises the Spoken Tutorial project**
- **If you do not have good bandwidth, you can download and watch it**

Spoken Tutorial Workshops

The Spoken Tutorial Project Team

- **Conducts workshops using spoken tutorials**
- **Gives certificates to those who pass an online test**
- **For more details, contact sptutemail@gmail.com**

Acknowledgements

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- More information on this Mission is available at http://spoken-tutorial.org/NMEICT-Intro