

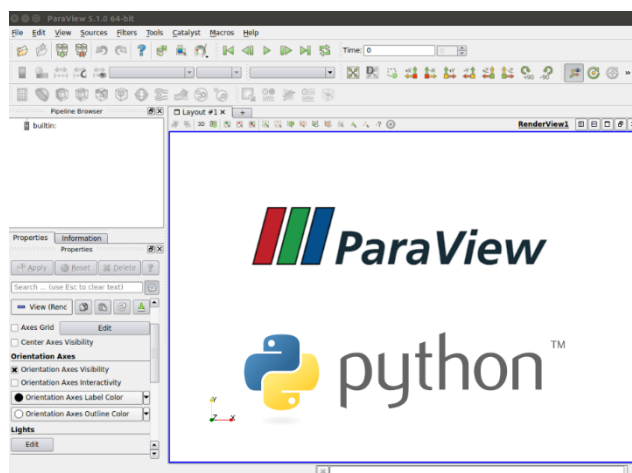
## Software Lab:

# Python-based Paraview postprocessor

### Setting

Postprocessing is the preparation and generation of visual simulation output for the purpose of informed decision making and not just the production of colorful pictures. Paraview [1] is a powerful program for the visualization and analysis of simulation output.

This project seeks to develop a lightweight python based postprocessor that can be used in paraview to visualize and manipulate results obtained from a finite element simulation, in this case the finite element framework of the CIE chair, *AdhoC++*, will be used. The postprocessor should be able to calculate auxiliary variables from the computation solution and leverage the functionality of paraview for the manipulation of field, data analysis and visualization.



### Tasks

- Understanding how python scripting in paraview works
- Extraction of mesh and topological data from *AdhoC++* and its output files
- Implementation and testing of different postprocessing functionality

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### References

[1] A. Henderson, ParaView Guide, A Parallel Visualization Application. Kitware Inc., 2007.