Title: “No C++, please. We’re users!” Case setup and quantitative evaluation using swak4Foam (and a bit of PyFoam)

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Description: In this class, case setup for non-uniform initial and boundary conditions using swak4Foam the successor of the popular groovyBC-library and funkySetFields-utility will be demonstrated. Also the capabilities of swak4Foam that surpass the original utilities will be demonstrated: non-uniform setting of any boundary field and evaluating expressions on subsets of the solution (using functionObjects). A subset of the PyFoam-utilities that help with post-processing the quantitative data that is produced by these (and other) functionObjects will be shown (most of these were not covered by previous presentations). Despite the title of the class it will be shown how to incorporate the swak4Foam-parsers into C++-programs (solvers and applications)

Duration: 90 minutes

Date and Location: 13 June 2011, Penn State University, State College, PA, USA

Suggested reading: The class will not give a complete introduction to PyFoam, so knowledge these two presentations will help to understand some of the examples: PyFoam presentation from OFW4 and Automatization with PyFoam from OFW5