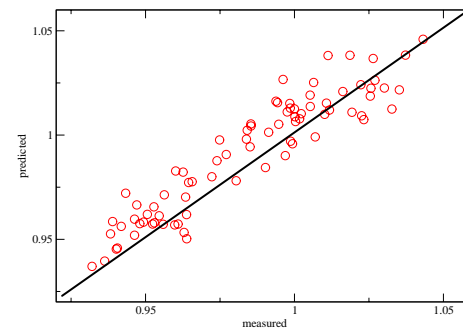
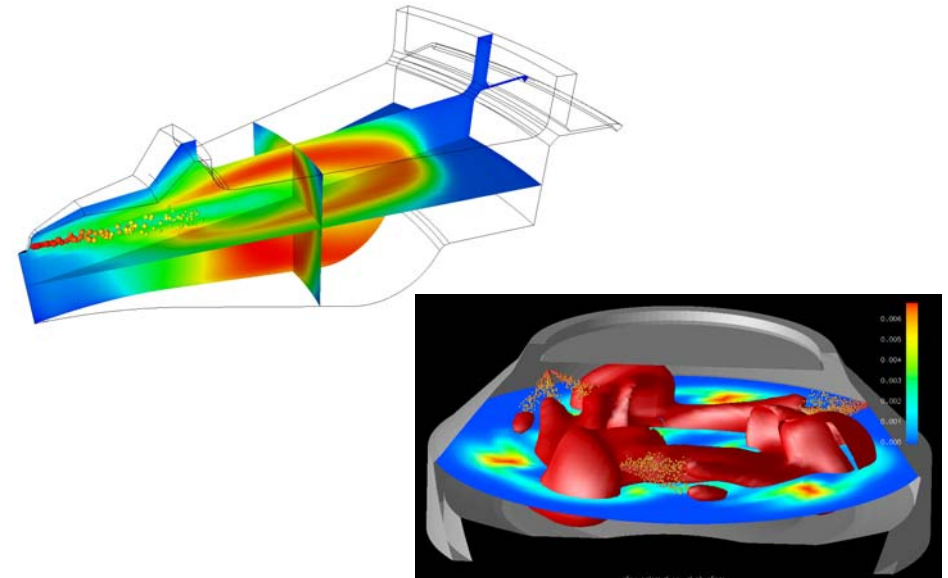


TASK 2.2: Emission formation simulation

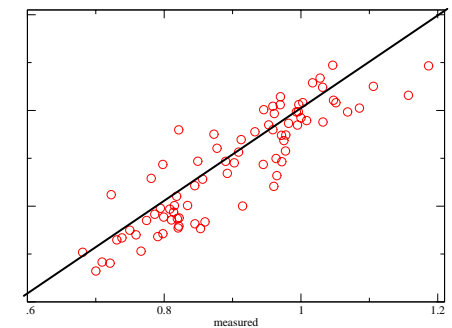
Objectives: To apply 3-D CFD tools to the simulation of in-cylinder processes, to extend and adapt existing physical models, to validate models against experimental data

Final Results & Achievements:

- Database of 2-stroke engine test data, including more than 2000 engine tests.
- Development of 3D CFD model with integration of state-of-the-art submodels for spray, combustion and emission formation on the basis of Kiva 3v2
- Validation of CFD model, with the total number of computations exceeding 10.000 runs against a large amount of measured data for both 2-stroke and 4-stroke.
- General conclusion: Satisfactory predictions for both performance and NOx emissions can often be made.
- However: Further validation effort needs measurements of local data for comparison.



fuel efficiency



NOx emission

Partners:



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Final Meeting, Brussels 5/9/2007