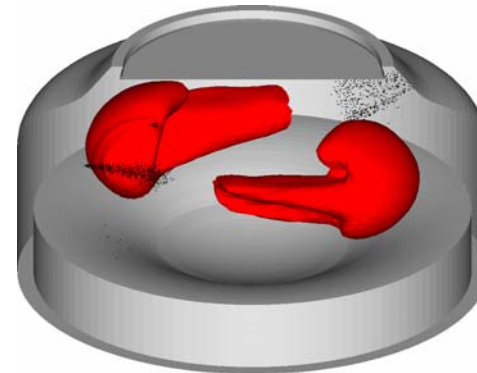


## TASK 2.2: Emission formation simulation

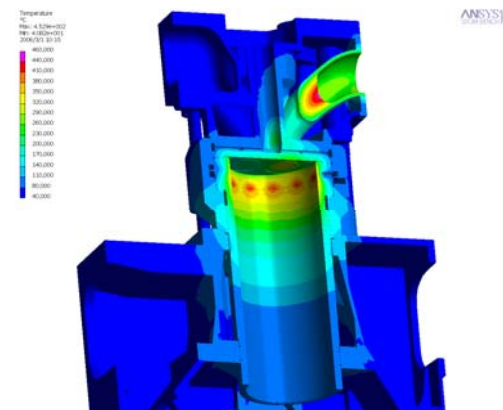
**Objectives:** To apply 3-D CFD tools to the simulation of in-cylinder processes, to extend and adapt existing physical models, to validate models against experimental data

### Progress Highlights:

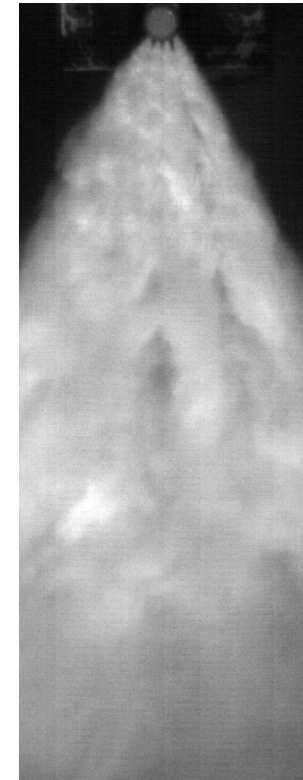
- Data mining of engine measurements (1500 test runs)
- Evaluation of physical models embedded in 3-D CFD codes for 2-stroke and 4-stroke engines
- Improved chemical description (modelling) of combustion in 2-stroke engines
- Dedicated measurements for validation purposes



Isosurface representation of predicted soot for 4T50ME-X two-stroke engine



Predicted wall temperatures in the combustion chamber of 32/44 four stroke engine



Exp. investigation of fuel spray geometry with high speed camera (50.000 frames/sec)

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