

Working group on computational modeling:

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Interest in modeling ECN experiments:

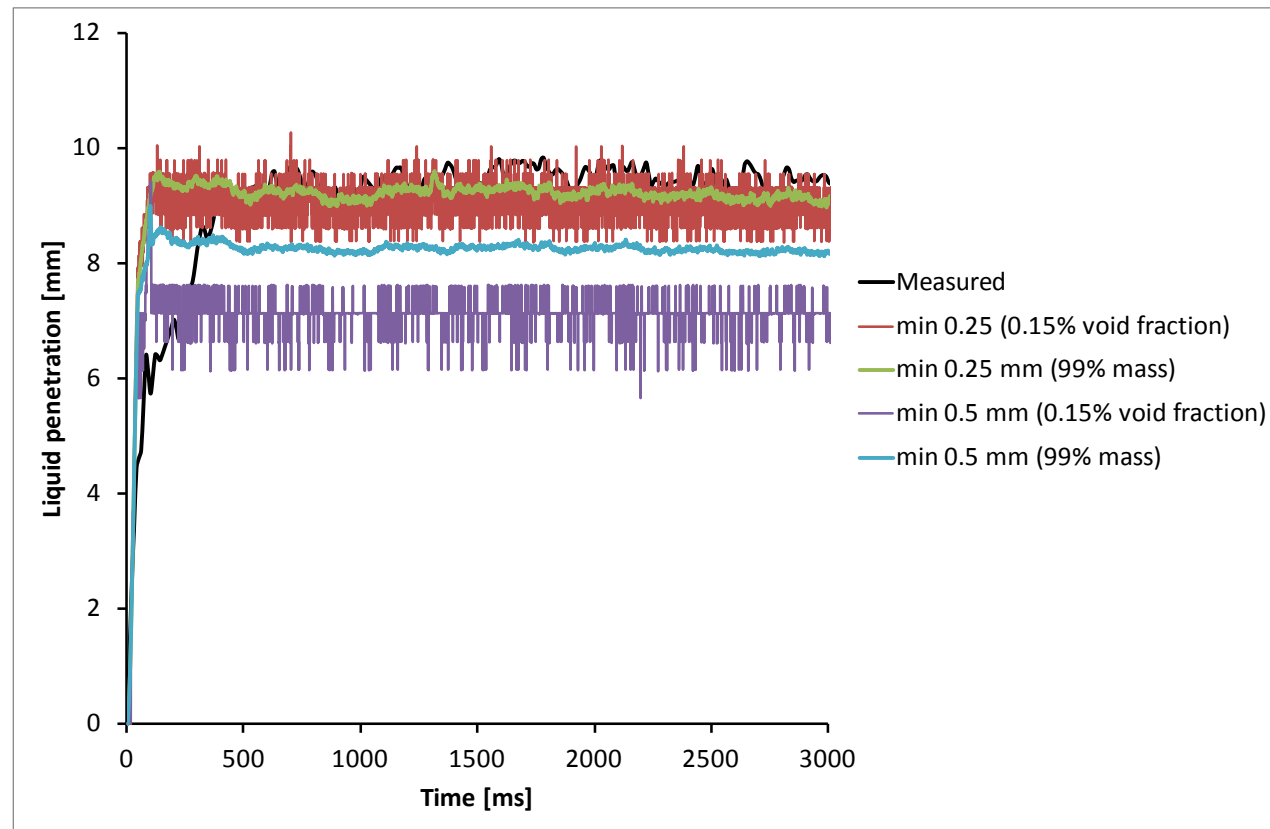
- Baseline and Spray A non-reacting and reacting conditions
- Hydrogen Engine for velocity and H₂ fraction distributions
- Gasoline Spray

Numerical code:

- OpenFOAM® with libraries and solvers for internal combustion engine developed at Politecnico di Milano (Lib-ICE package).

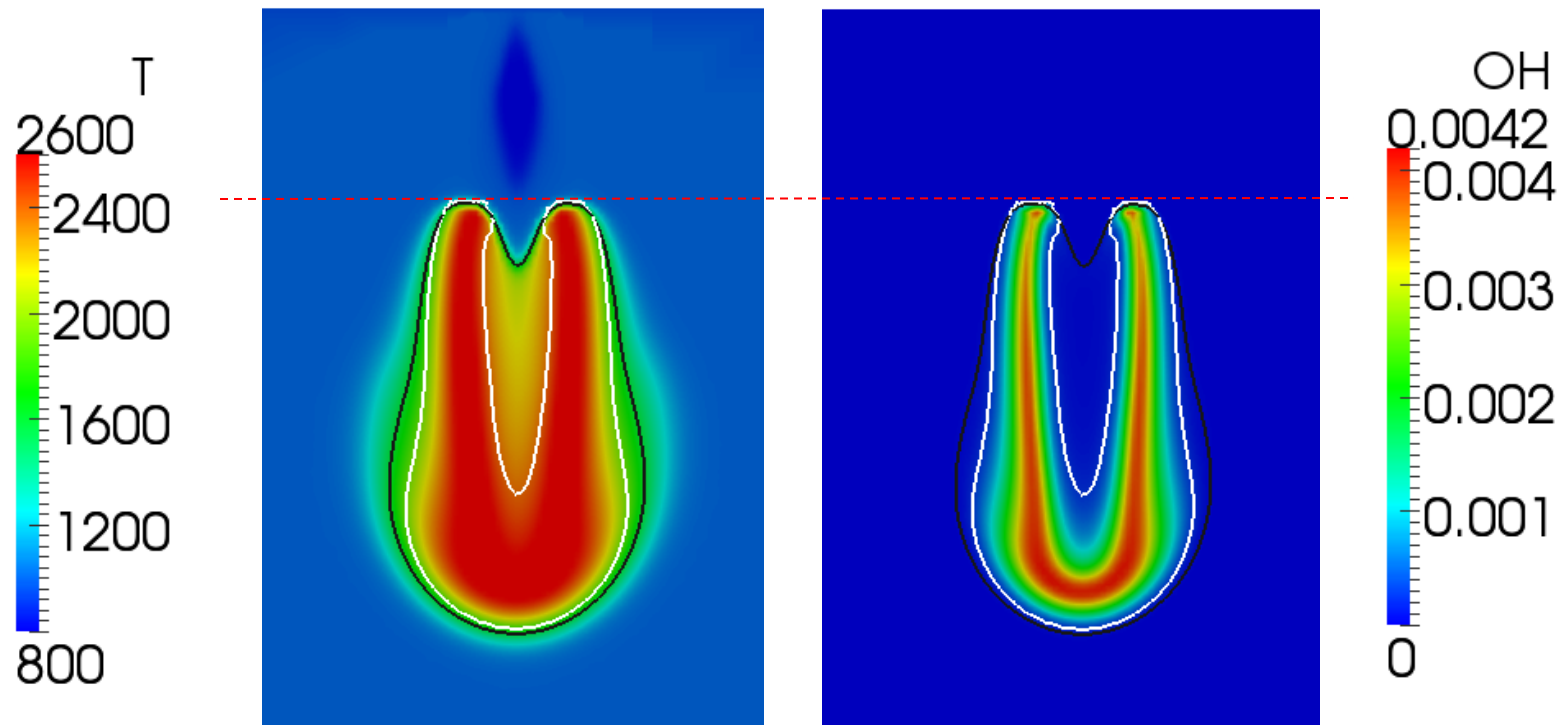
Liquid length definition

- Liquid penetration defined on the void fraction on the cell is mesh dependent.
- Definitions on void fraction and mass fraction converge for low threshold values.



Lift-off length definition

- No significant differences between isoTemperature at 1600 K (black line) and isoOH at 0.00025 (white line).



New methods from Ventura meeting



- New definitions assessment.
 - Mixture fraction variance analysis.
 - Use of a unique detailed mechanism from Ranzi et al. (285 species and 8126 reactions) for n-heptane and dodecane.
 - New combustion model with chemistry coordinate mapping (CCM) developed in collaboration with Dr. M. Jangi and Prof. X. Bai (Combustion Physics Division, Lund University of technology).
- CFD Domain

