



# GERG

## Young Researcher's Prize

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Nov 25, 2015



# Guido ten Thij

## Application of fractal grids in industrial low-swirl combustion

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GERG  
Young Researcher's Prize

# Introduction



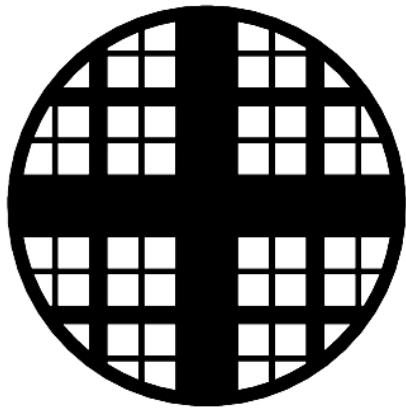
**Low-swirl  
combustion**



**Positive  
result**



**Industry**

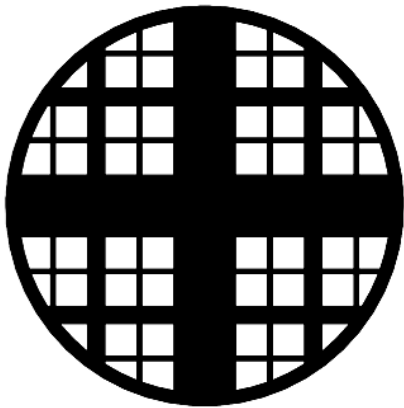


**Fractal grids**

# Introduction

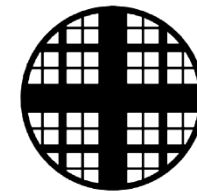
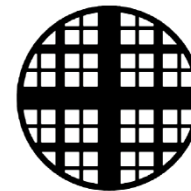
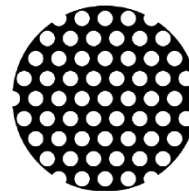
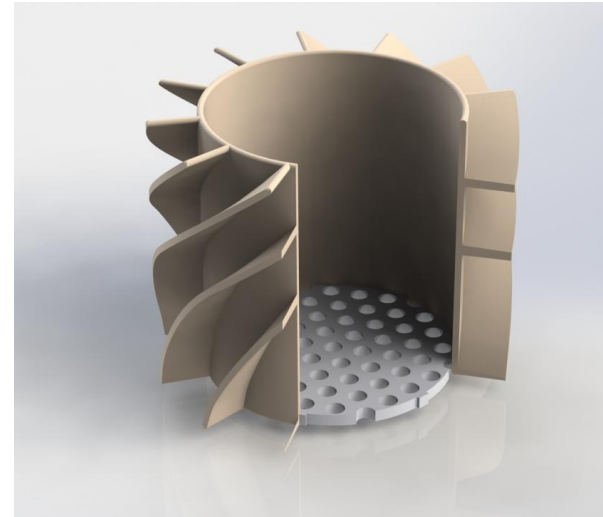


**Low swirl ready for the future  
using alternative fuels?**



**NOx reduction by increasing  
turn-down ratio?**

# Experimental set up

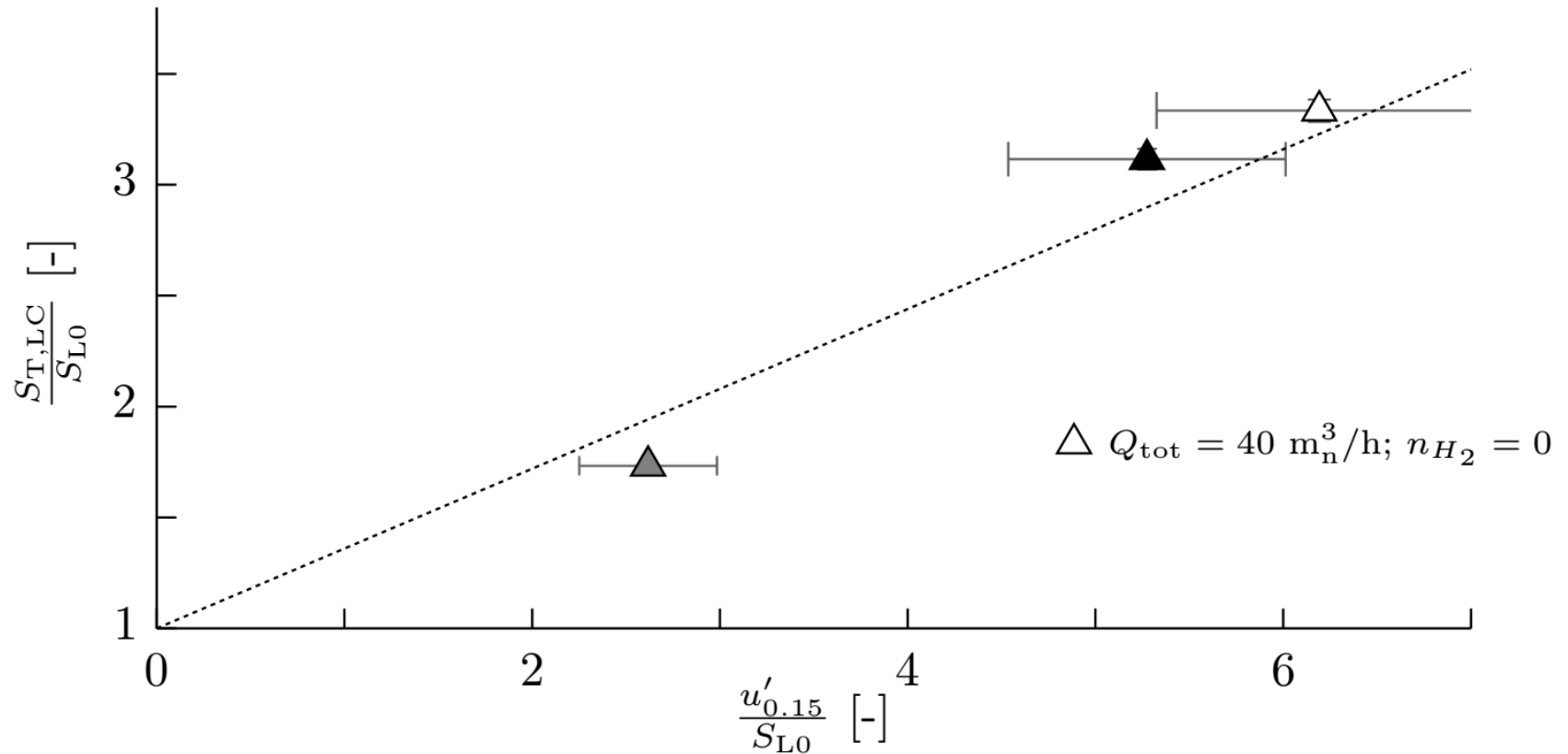


Premixed reactants

# Goal

- Determine how hydrogen enrichment influences the beneficial combination of fractal grids and low-swirl combustion.
- Determine how fractal-grid-generated turbulence influences the lean stability limit.

# Results



# Results

