# United Kingdom Consortium on Turbulent Reacting Flows (UKCTRF)

## 15 & 16 SEPTEMBER 2016

## DURHAM UNIVERSITY, COLLINGWOOD COLLEGE

# (UKCTRF) 15 & 16 September 2016
## Durham University, Collingwood College, Penthouse B
## Thursday 15 September - Day one

| Time | Speaker | Title |
|---|---|---|
| 09:30 | **Registration and Refreshments** | |
| 10:30 | Professor Nilanjan Chakraborty | Welcome and Introduction |
| | **Session Chair – Prof. R. Stewart Cant, Cambridge University Engineering Department** | |
| 10:45 - *11:20* | Professor Markus Klein | Recent experiences with modelling of turbulence chemistry interaction in the context of LES using DNS of turbulent premixed generic planar flame configurations |
| | **Session Chair – Dr. Salvador Navarro-Martinez, Imperial College London** | |
| 11:25 - *11:45* | Yu Xia | Dispersion of entropy waves advecting through combustor chambers |
| 11:55 - *12:15* | Reza Khodadadi Azadboni | CFD modelling of non-uniform Hydrogen flame propagating across obstacles and inducing detonation |
| 12:25 | Chandra Vendra | Vented explosion : modelling flame instabilities |
| 12:45 | **Lunch & Poster Session– Penthouse A** | |
| | **Session Chair – Dr. Jun Xia, Brunel University** | |
| 14:00 - *14:20* | Huangwei Zhang | Modelling spark ignition of turbulent jet flows with LES/CMC |
| 14:30 - *14:50* | Girish Nivarti | Direct Numerical Simulation of the Bending Effect in Turbulent Premixed Flames |
| 15:00 - *15:20* | Philip Sitte | Modelling of spray flames with Double Conditional Moment Closure |
| 15:30 - *15:50* | Nguyen Anh Khoa Doan | DNS of partially premixed MILD combustion |
| 16:00 - *16:20* | Jian Fang | First Investigation of HAMISH: An Adaptive Mesh Solver for Turbulent Reacting Flows |
| 16:20 | **Refreshments & Poster Session – Penthouse A** | |
| 19:00 | **Pre-Dinner Drinks – Penthouse Boardroom** | |
| 19:30 | **Annual Dinner – Penthouse Boardroom** | |

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### Friday 16 September Day Two

| 09:00 | | Refreshments |
|---|---|---|
| | | **Session Chair – Prof. W Jones – Imperial College London** |
| 09:15 - 09:55 | Dr Ghenadie Bulat | 70 years of combustion development for industrial gas turbines in Lincoln |
| | | **Session Chair – Dr Stelios Rigopoulos, University of Cambridge** |
| 10:00 - 10:20 | Jiawei Lai | Analysis of turbulent premixed flame-wall interaction by using simple and detailed chemistry based Direct Numerical Simulations data |
| 10:30 - 10:50 | Ivan Sikic | Improvement of gas radiation treatment in FireFOAM |
| 11:00 - 11:20 | Andrea Giusti | Numerical investigation of an ultra-low NOx methane burner |
| 11:20 | | **Refreshments & Poster Session** |
| 11:30 - 11:50 | Fabian Sewerin | Combining LES with a detailed population balance model to predict soot formation in a turbulent non-premixed jet flame |
| 12:00 - 12:20 | Xujiang Wang | Direct Numerical Simulation of Turbulent Lean Premixed H2/Air Flames at Elevated Pressure |
| 12:30 | Neelofer Banglawala | Archer Update |
| 13:00 | | General Discussion & Closing Comments from Professor Nilanjan Chakraborty |
| 13:30 | | **Lunch & Poster Session – Penthouse A**<br>(Impact Advisory Panel and Management Committee members are requested to remain thereafter) |
| 14:30 | | Meeting with Impact Advisory Panel and Management Committee |
| 16:30 | | Approximate Finish Time |