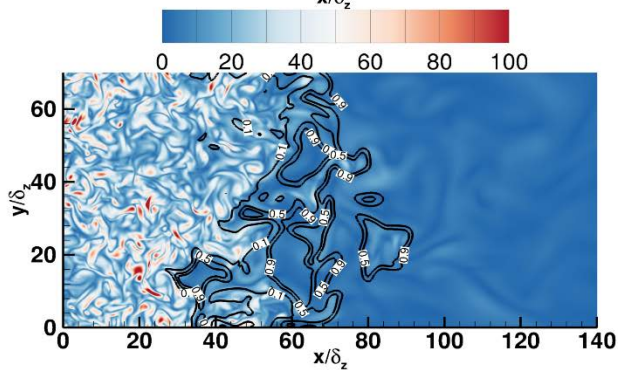
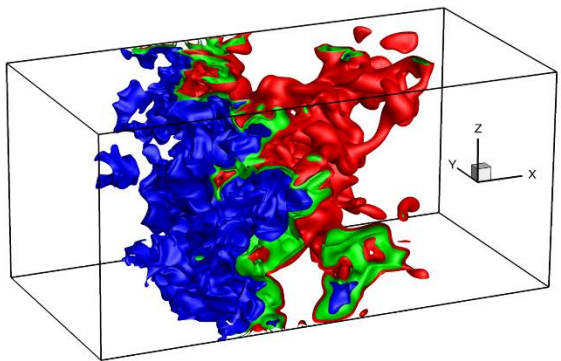
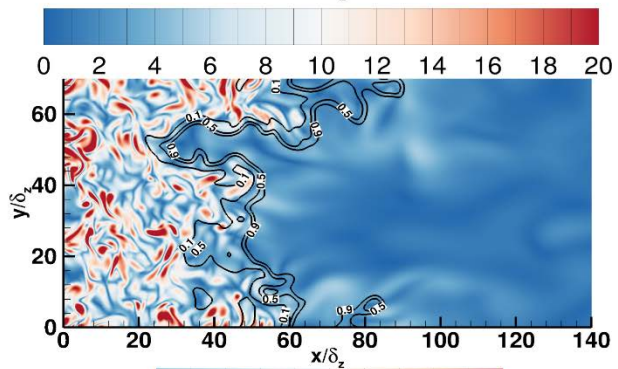
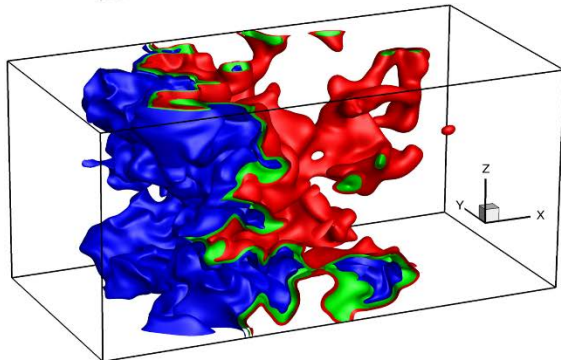
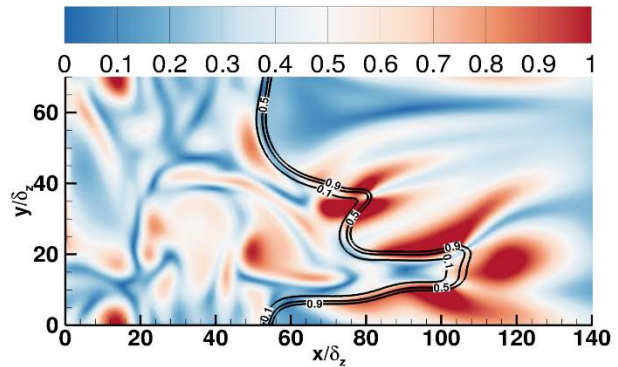
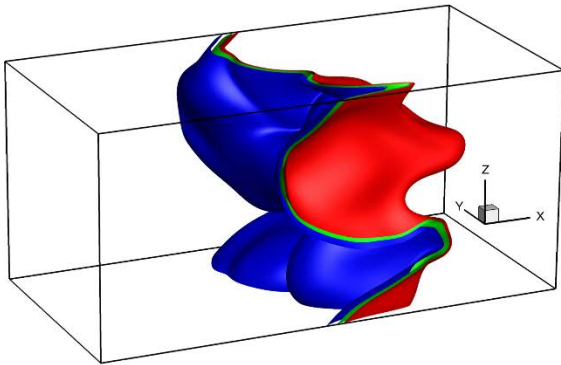


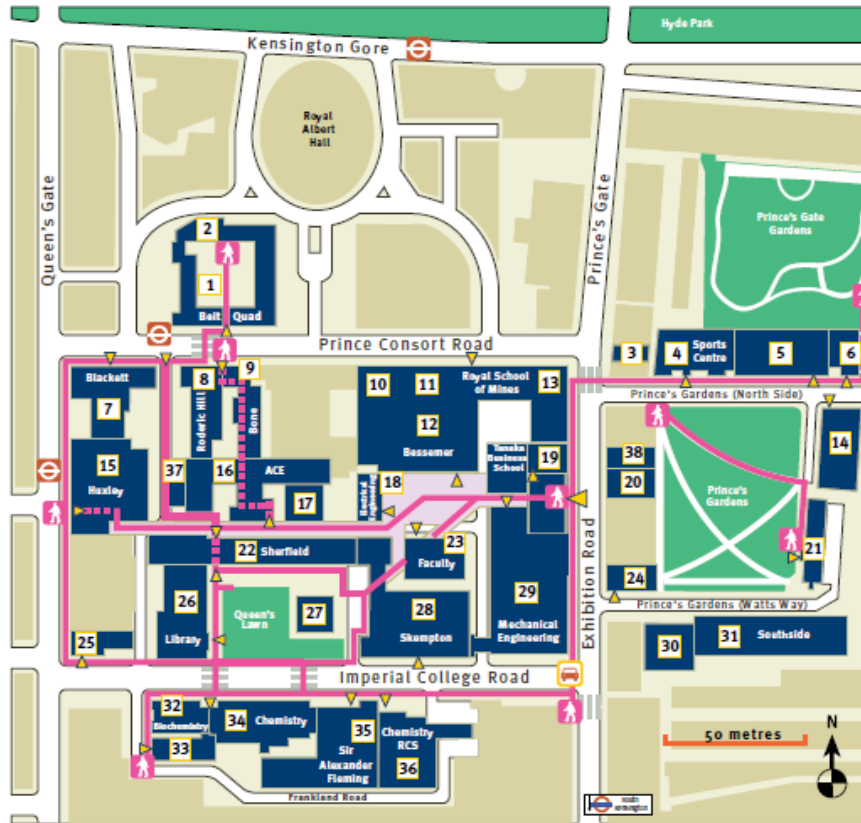
# UKCTRF Annual Meeting Programme

Held at Imperial College London, on 11<sup>th</sup> & 12<sup>th</sup> September 2019



Imperial College  
London

## South Kensington Campus



Imperial College  
170 Queen's Gate  
SW7 5HF

170 Queens Gate is the venue for the conference; this building is based at the South Kensington Campus. This is number 25 on the above map.

All presentations will take place in the Council Room. Registration, refreshments and lunches will take place just outside of the Council Room in the hallway.

Accommodation is Prince's Gardens; you can access the reception on Watt's Way. On arrival, please check in here. You can leave all belongings at reception if you arrive before the 2pm check-in.

### Transport

Car - Car parking at South Kensington Campus is severely restricted and you are advised to travel by public transport.

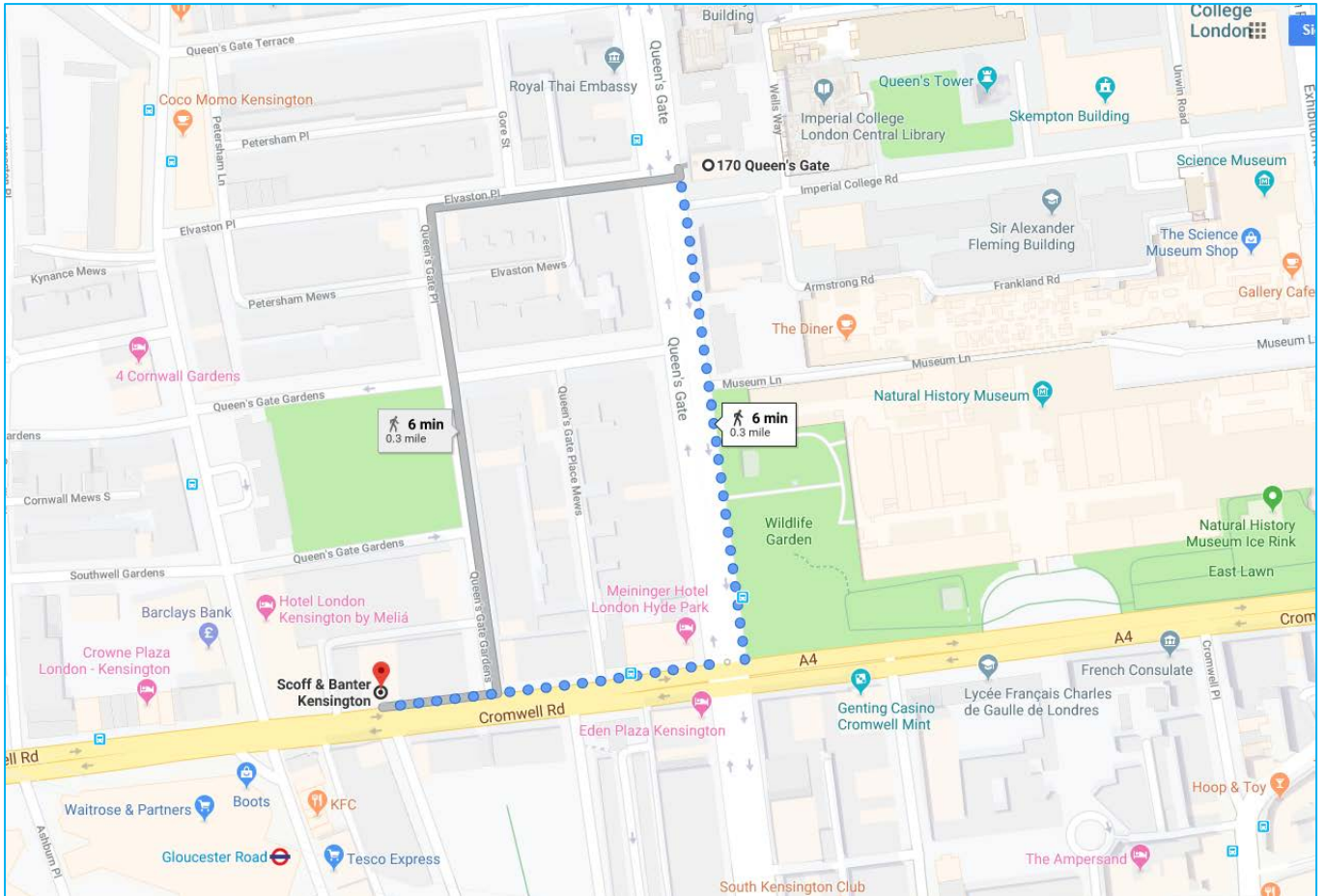
Tube - The nearest Underground station is South Kensington, on the District, Circle and Piccadilly lines.

Bus - South Kensington is easily accessible by bus. The nearest bus stops are:

- C1 stop: Buses 14, 49, 70, 74, 345, 360, 414, 430
- Royal Albert Hall stop: Buses 9, 10, 52, 452 and 70

# Conference Dinner at Scoff and Banter

## Wednesday 11<sup>th</sup> September, 7:30pm



68-86 Cromwell Road  
London  
SW7 5BT

Scoff & Banter is a 6 minute walk from 170 Queens Gate and a 15 minute walk from the accommodation at Princes Gardens.

## Wednesday 11<sup>th</sup> September 2019

- 08:30 – 10:00**      **Breakfast and Registration**  
*Held at 170 Queens Gate*
- 10:00 – 10:15**      **Welcome and Introduction – Professor Nilanjan Chakraborty**  
*Sessions commence in Council Room*
- 10:15 – 11:00**      **Keynote Speaker: Dr Nicolas Tonello**  
*Transforming CFD in Industry through High Performance Computing and High Performance Collaboration*  
**(Introduced by Prof. David Emerson)**
- 11:00 – 11:20**      **H Y Tang, G Papadakis, S Rigopoulos; Imperial College London**  
*Coupling Direct Numerical Simulation with Population Balance Modelling for Predicting Turbulent Particle Precipitation in a T-Mixer*  
**(Chaired by Prof. David Emerson)**
- 11:20 – 11:50**      **J M Foale, A Giusti, E Mastorakos; University of Cambridge**  
*Detailed Chemistry Kerosene Swirl Spray Flames Modelled with LES-CMC*  
**(Chaired by Prof. David Emerson)**
- 11:50 – 12:10**      **Coffee Break**
- 12:10 – 12:30**      **D Fredrich, W P Jones, A J Marquis; Imperial College London**  
*Prediction of self-excited combustion instabilities in gas turbines using compressible large eddy simulation*  
**(Chaired by Prof. David Emerson)**
- 12:30 – 12:50**      **Z X Chen, N Swaminathan; University of Cambridge**  
*Large Eddy Simulation of Azimuthal Instability in a Model Annular Gas Turbine Combustor*  
**(Chaired by Prof. David Emerson)**
- 13:00– 14:00**      **Lunch**
- 14:00 – 14:20**      **O Rathore, S Navarro-Martinez; Imperial College London**  
*Numerical Simulation of Flame-Flame interaction and Indirect Noise*  
**(Chaired by Dr. Salvador Navarro-Martinez)**
- 14:20 – 14:40**      **U Ahmed, I Konstantinou, N Chakraborty; Newcastle University**  
*Effects of flame configuration on flame-wall interaction in fully developed turbulent boundary layers*  
**(Chaired by Dr. Salvador Navarro-Martinez)**
- 14:40 – 15:00**      **D Yang, J Su, D Laera, Y Xia, A S Morgans; Imperial College London**  
*Simulating thermoacoustic response of multiple burners in gas turbine combustors*  
**(Chaired by Dr. Salvador Navarro-Martinez)**

- 15:00 – 15:20**     **J C Massey, Z X Chen, N Swaminathan; University of Cambridge**  
*Non-Adiabatic Flamelet Modelling of a Lean Swirl Stabilised Flame Close to Blow-Off*  
**(Chaired by Dr. Salvador Navarro-Martinez)**
- 15:30 – 16:00**     **Coffee Break**
- 16:00 – 16:20**     **X Dai, S Welch; University of Edinburgh**  
*The challenge of scaling-up wood crib fire experiments to travelling fires in large compartments*  
**(Chaired by Dr. Salvador Navarro-Martinez)**
- 16:20 – 16:40**     **S Trivedi, S Cant; University of Cambridge**  
*DNS analysis of flame propagation for systematic variations in turbulence scales and intensity*  
**(Chaired by Dr. Salvador Navarro-Martinez)**
- 16:40 – 17:00**     **V S Papapostolou, C. Turquand d’Auzay, G Ozel-Erol, N Chakraborty; Newcastle University**  
*Direct Numerical Simulation analysis of localised forced ignition and flame propagation in turbulent droplet-laden mixtures*  
**(Chaired by Dr. Salvador Navarro-Martinez)**
- 17:00 – 19:30**     **Networking & Own Time**
- 19:30 – 21:30**     **Conference Dinner**  
*Scoff and Banter, Kensington*

## Thursday 12<sup>th</sup> September 2019

- 08:30 – 10:00**     **Breakfast and Registration**  
*Held at 170 Queens Gate*
- 10:00 – 10:20**     **J R Bailey, E S Richardson; University of Southampton**  
*The Effect of Swirl on Boundary Layer-Flashback Processes for Hydrogen-Rich Gas-Turbine Combustion*  
**(Chaired by Prof. N Swaminathan)**
- 10:20 – 10:40**     **J Wen; Warwick University**  
*Analysis of the Individual Heat Flux Components on the Wall during Upward Flame Spread over PMMA using Wall-Resolved Large Eddy Simulation*  
**(Chaired by Prof. N Swaminathan)**
- 10:40 – 11:00**     **T Jin, X Wang, K Luo; University College London**  
*Direct Numerical Simulation of Ignition and Combustion under Extreme Conditions*  
**(Chaired by Prof. N Swaminathan)**
- 11:00 – 11:20**     **Y Gong, W P Jones, A J Marquis; Imperial College London**  
*Study of a Premixed Turbulent Counter-Flow Flame with a Large Eddy Simulation Method*  
**(Chaired by Prof. N Swaminathan)**
- 11:20 – 11:40**     **R S Cant, J Fang, U Ahmed, G Nivarti, C Moulinec, D R Emerson, N Chakraborty**  
*Demonstration of key capabilities of an unstructured Adaptive Mesh Refinement based code HAMISH*  
**(Chaired by Prof. N Swaminathan)**
- 11:40 – 12:25**     **Keynote Speaker: Prof P Lindstedt**  
*Limits of Bimodality in Turbulent Combustion*  
**(Introduced by Prof. Stewart Cant)**
- 13:00 – 14:00**     **Lunch**
- 14:00 – 16:00**     **Management Committee and Impact Advisory Panel Meeting**  
*Held in Council Room*  
*Refreshments will be available from 15:00*

