

*UK Fluids Network Special Interest Group in Nuclear Thermal Hydraulics –
Advanced Modelling, Simulation and Experimentation (SIG NTH)*

- Dissemination Event -
**Project FORTE: Nuclear Thermal Hydraulics
Research & Development**

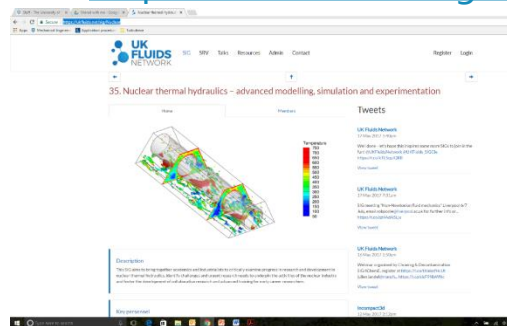
Meeting 4 of UKFN SIG NTH
Halifax Hall, Sheffield
18 February 2019



The
University
Of
Sheffield.

UK Fluids Network (UKFN) and Special Interest Group in Nuclear Thermal Hydraulics (SIG NTH)

- **SIG NTH is part of the UKFN**, funded by EPSRC between September 2016 and February 2020.
- **Purpose of SIG NTH**
 - To bring together academics and industrialists to critically examine progress in research and development in NTH, identify challenges and research needs to underpin the activities of the nuclear industry and foster collaboration and advanced training.
- **Membership:**
 - 45 members from 9 universities and 7 industrial organisations.
 - Website: <https://fluids.ac.uk/sig/Nuclear>



University	Industry
University of Manchester	Frazer-Nash Consultancy
University of Sheffield	EDF Energy (Barnwood)
Imperial College London	EDF Energy R&D UK Centre
University of Leeds	Moltex Energy
University of Cambridge	Wood plc
University of Oxford	Rolls-Royce
Liverpool John Moores University	Defence Academy, HMS Sultan
Science and Technology Facilities Council (STFC)	
University of Wales (Bangor)	

Events of SIG NTH

- **Meeting 1, 24 & 25 May 2017, Halifax Hall, Sheffield**
 - Kick off and getting to know each other and the context; planning
 - Presentations by research groups, industrial organisations, NIRO and EPSRC
- **Meeting 2, 19 & 20 February 2018, Chancellors, Manchester**
 - SMR, HPC and research progress.
- **Meeting 3, 17 & 18 September 2018, City and Guilds Building, Imperial College**
 - NTH at ICL, research progress and BEIS project update
- **Meeting 4, 18 February 2019, Halifax Hall, Sheffield**
 - Dissemination Event of Project FORTE: Nuclear Thermal Hydraulics R&D
- **Training course, 19 & 20 June 2019, Manchester**
 - Nuclear thermal hydraulics through HPC and CFD (Code_Saturne)
- **Meeting 5 – TBC**

Agenda

9:30 – 10:00	Arrival and registration (Arrival refreshments)
10:00 – 10:05	Welcome (Shuisheng He/Hector Iacovides)
Morning session – Facility and model specifications (Chair: Hector Iacovides)	
10:05 – 10:25	Overview (Carolyn Howlett)
10:25 - 11:00	Facility specification (Richard Underhill)
11:00 – 11:35	Model specification (Graham Macpherson)
	Group photo
11:35 – 12:35	Lunch
Afternoon session – R&D in thermal hydraulics (Chair: Carolyn Howlett)	
12:35 – 13:10	Smart models for reactor components (Dr Bo Liu)
13:10 – 13:45	Advanced modelling methodology development and validation (Dr Dean Wilson)
13:45 – 14:15	Coffee
14:15 – 14:50	Smoothed Particle Hydrodynamics (SPH) for nuclear applications (Dr Georgios Fourtakas)
14:50 – 15:25	Liquid metal thermal hydraulics (Dr Xiaoxue Huang)
15:25 – 16:00	Discussion and feedback (Facilitator- Richard Underhill)
16:00	Coffee, networking and departure