# MODELLING IN NUCLEAR SCIENCE AND ENGINEERING SEMINAR 2020

## POSTER PRESENTATIONS
## Wednesday 4th November 2020

### Session 1 - THEME: Fuel Modelling

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|---|---|---|
| 12:00 | **Megan Owen**, Bangor University, UK | Impact of dopants on diffusion in crystalline and amorphous zirconia |
| 12:05 | **Dr. Lee Evitts** Bangor University, UK | Modelling the phonon and electron transport through nuclear fuels |
| 12:10 | **Gareth Stephens** Bangor University, UK | Developing an understanding of Li incorporation into $ZrO^2$ :a fuel performance study |
| 12:15 | **Adolphus Lye et al** University of Liverpool, UK | Bayesian model updating of fatigue crack growth prediction parameters using adapted likelihood functions |
| 12:20 | **Alan Charles** Jacobs, UK | Multi-objective Optimization of Heterogeneous Light Water Reactor Fuel Assemblies |
| 12:25 | **Aniket Joshi** Imperial College London, UK | Modelling and experimentation of different small specimen tensile testing (SSTT) techniques in efforts of test standardisation |

## Session 1 - THEME: Reduced Order Modelling

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| 12:30 | **Toby Phillips**<br>Imperial College London, UK | A hierarchical projection based-reduced order model applied to neutron transport |
| 12:35 | **Alexander Hughes**<br>Queen Mary College London, UK | Reduced Order angular discretisation for neutron transport simulation |

## SESSION 2 - THEME: Accident Analysis

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| 17:25 | **Nicolas Dufflot**<br>IRSN, France | Modelling and risk analysis in French PSA level 2 |
| 17:30 | **A. Nourian & G.G Nasr**<br>University of Salford, UK | Utilisation of Spill Return Atomiser (SRA) in Decontamination, Coating and Fire Suppression |

## SESSION 2 - THEME: Thermal-Hydraulics

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| 17:35 | **Dr. Marcus Dahlfors**<br>Bangor University, UK | THOR - the new thermal-hydraulics rig at M-Sparc |
| 17:40 | **M. K. Abba, A. J.Abbas & A. Nourian**<br>University of Salford, UK | Flow Modelling of Injection Orientation of Supercritical CO2 In Porous Media for Enhanced Gas Recovery (EGR) |
| 17:45 | **Kene Nwegbu**<br>Imperial College London, UK | Fluid Flow Solver for Nuclear Reactors using Automatic Code Generation |
| 17:50 | **Liang Yang**<br>Cranfield University | Track Record: Flexible Mesh Multiphysics Coupling for Nuclear Engineering (reFINE) |