MONDAY, 14 APRIL 2014 - DAY ONE

Lunch and registration from 12:30

1.30 Introduction and Welcome

1:40 – 3:40 Session 1

1:40 TOBY WRIGHT
Neutron Cross Section Measurements With The Time Of Flight Technique

2:00 TANYA HUTTON
Nuclear Data For Fusion: Determining The Validity Of Typical Pre-Processing Methods For Fusion Specific Radiation Transport Calculations

2:20 GHEBREHIWOT BERHANE
Nano-Structured Beta Detectors For The Detection Of Tritium (Nanodot)

2:40 DANIEL AYRES
Uncertainty Quantification In Criticality Calculations Using Methods Of Polynomial Chaos

3:00 HASSAN MOHAMED
An Investigation Of The Effects Of Moderator-To-Fuel Ratio ($V_m/V_f$) Variations In A Small Fluoride-Salt Cooled, High-Temperature Reactor’s (FHR) Performance

3:20 – 3:40 Tea/Coffee Break

3:40 – 5:00 Session 2

3:40 PATRICK BURR
DFT Investigations Of Dilute Fe And Cr Additions In Zr: Implications For Irradiated Zr Alloys

4:00 XIAO GAI
Helium Bubbles In BCC Fe

4:20 JAMES GIBSON
High Temperature Nanoindentation Of Ion-Implanted Tungsten

4:40 KATHERINE PLUMMER
Micro-Mechanical Measurements Of Temperature-Dependent Plastic Deformation In Molybdenum

5:00 THOMAS HAYNES
Finite Element Modelling Of Pellet-Cladding Interaction In Advanced Gas Reactor Fuel
TUESDAY, 15 APRIL 2014 - DAY TWO

9.00 - 11.00  Session 3

9:00  CHOEN MAY CHAN
Localised Corrosion Of Advanced Gas-Cooled Reactor Fuel Cladding

9:20  CHRISTOPHER ANWYL
Hydrogen Peroxide Effects On The Corrosion Behaviour Of AGR Fuel Pin Steel Under Conditions Relevant To Permanent Disposal

9:40  BEN PEACH
Effects Of Concrete Composition On Hygro-Thermo-Chemical Reactions During Laser Scabbling Of Concrete For Nuclear Decommissioning

10:00  ROBERT WORTH
Characterisation And Thermal Treatment Development Of UK Irradiated Graphite Waste

10:20  GIUSEPPE G SCATIGNO
Chloride-Induced Transgranular Stress Corrosion Cracking Of 304L Austenitic Stainless Steel

10:40  ZOE TWEDDLE
The Experimental And Computational Analysis Of Nitric Acid Radiolysis

11.00-11.20  Tea/Coffee Break and Posters

11.20 - 1.00  Session 4

11:20  JONATHAN BEAUMONT
A Mixed Field Imaging System For Locating Sources Of Neutron And Gamma Ray Radiation

11:40  IOANNIS TZAGKAROULAKIS
Real Time Nanogravimetric Monitoring Of Corrosion In Radioactive Environments

12:00  MATTHEW NANCEKIEVILL
Development Of A Radiation Tolerant Mechatronic System For Underground Sensor Deployment

12:20  RONAK THAKRAR
Component-Scale Modelling Of Subcooled Boiling Flows

12:40  YIQIANG WANG
Novel Testing to Investigate the Elastic Follow-up Creep Behaviour of Type 316H Austenitic Stainless Steel

1:00 – 2:00  Lunch
Session 5

2:00  ZOLTAN HIEZL
Preparation And Characterisation Of UO₂– Based AGR Simfuel - Continuation

2:20  NADIA ROHBECK
Experimental Evaluation Of The Mechanical Integrity Of Silicon Carbide In Triso Fuel Up To 2200° C

2:40  JAMES PAUL
Laser Induced Chemical Vapour Deposition Of 3C-SiC

3:00  LAVINIA RAGANELLI
How Certain Can We Be Of How Operators Will Perform In A Level 2 PSA Situation?

3:20  OSCAR NIETO CEREZO
Mechanism Design For Risk Allocation And Benefit Sharing In The Development Of A Geological Disposal Facility For Nuclear Radioactive Waste

3:40 – 4:00  Tea/Coffee Break

Session 6

4:00  MATTHEW JACKSON
A Concerted Mechanism Of Cl Migration In Chlorapatite

4:20  MARC COURY
Quantum Mechanical Simulation Of Magnetic Alloys: S, P And D Model Hamiltonians

4:40  BENJAMIN BELL
Atomic Scale Modelling Of Factors Affecting Hydrogen Pickup In Zircaloy -2 And -4 Cladding

7.00 - 10.00 Conference dinner and reception at Mansfield College: Dress smart casual, please
WEDNESDAY, 16 APRIL 2014 – DAY THREE

9:00 – 11:00  Session 7

9:00  PETER GILL
A Finite Element Tool To Evaluate Leak Rates For Leak Before Break Assessments

9:20  GIOVANNI GIUSTINI
Nucleate Boiling At Micro-Scale: Current Modelling Trends And Challenges

9:40  FREDERIC SEBILLEAU
CFD Analysis Of Single Phase Counter-Current Buoyancy Driven Flow And Its Applications To Passive Reactor Design

10:00  JANANI SREE MURALIDHARAN
Wall Heat Flux Modelling In Subcooled Flow Boiling

10:20  MARTYN KENDRICK
CFD Modelling Of Natural Circulation Between Heated Parallel Plates At Inclined Angles: A PhD Outline

10:40  MICHAEL WOLFENDALE
A Coupled Systems Code – CFD MHD Solver For Fusion Blanket Design

11:00 – 11:20  Tea/Coffee Break

11.20 - 12.20  Session 8

11:20  NICHOLAS O’MEARA
Predicting Residual Stresses In Ferritic RPV Steel Welds: Material Factors

11:40  MATTHEW JORDAN
Measurements Of Stress Concentration Behaviour In AGR Graphite

12:00  MUSTAFA NASSER
Examining The Effect Of Environment On The Fatigue And Creep-Fatigue Behaviour Of Type 316H Steel

12:20  CEM ÖRNEK
Low Temperature Atmospheric Stress Corrosion Cracking Investigations Of 2205 Duplex Stainless Steel

12:40  GUIYI WU
Finite Element Studies On The Transfer Ability Of A Pipe Subjected To Thermal Shock From The Laboratory To Structure

13:00 - 13.30  Lunch

END OF UNTF 2014

13.30-16.00  NAILS Meeting (Wolfson Meeting Room)