



Science & Technology Facilities Council

ISIS



NEUTRONS
FOR SCIENCE

UK Neutron and Muon Science and User Meeting

25th – 27th April 2018

Warwick Conferences, Coventry



Welcome to the

UK Neutron and Muon Science and User Meeting 2018!

The UK neutron and muon science and user meeting is an opportunity to hear about the latest science from the ISIS Neutron and Muon Source and ILL, plus updates from the facilities and other matters of interest to neutron and muon users.

The meeting will be made up of a dedicated student day, a science day and a user meeting, similar to the format of last year's meeting.

We hope that you enjoy the meeting and look forward to seeing you at Warwick!

Wednesday 25th April : *Student day*

A day organised for UK PhD students using neutrons or muons in their work.

Thursday 26th April: *Science day*

Plenary talks given by key speakers followed by science talks organised into five themed groups:

- Functional materials
- Magnetism and superconductivity
- Biosciences and soft matter
- Chemistry and catalysis
- Engineering

The day will end with some plenary talks on instrument developments from ISIS and ILL, followed by a poster session and conference dinner.

Friday 27th April: *User meeting*

Updates from ISIS Neutron and Muon Source, ILL, ESS and Diamond, and student poster prize talks.

General Information

The venue:

The event will take place at [The Slate](#) and in [Scarman House](#), Warwick Conferences.

Car Parking

Complimentary car parking is available for all conference delegates at Scarman, Radcliffe, Arden and The Slate. A parking permit is not required when using Scarman and Radcliffe, but you will be required to collect an exit code from Scarman/Radcliffe reception prior to departure.

Please Note: Accessible parking spaces are available in all of the car parks. These can be used by Blue badge holders only.

Charging points for electric cars are available in all car parks on campus.

Session Room Locations

The student day meeting is being held in the Tiered Lecture Theatre at Scarman House on Wednesday 25th April.

The plenary sessions on Thursday 26th and Friday 27th April are being held in [The Slate](#), and the breakout sessions will be in meeting rooms in [Scarman House](#) (please refer to the programme to see which room your chosen session will be in).

Directions and travel

By Car:

The postcode is **CV4 7SH**

This postcode directs you to Scarman Road. You'll need to follow directional signage to Lakeside Village. You'll then find signposts for Radcliffe, Scarman and The Slate, which are all directly opposite to each other.

By Rail:

Coventry is on the West Coast Mainline and is serviced by regular trains, 7 days a week.

- Birmingham New Street (20 minutes)
- Leicester (62 minutes)
- London Euston (59 minutes)
- London Marylebone (1hr 40m)

There's a taxi rank at Coventry station, a single journey should cost between £10.00 to £15.00, however prices may vary.

By Bus:

Local buses offer a frequent and convenient way of travelling to and from campus. There are regular bus services to the University campus from Coventry city centre and Coventry rail station, with the journey taking approximately 30 minutes.

For Scarman or Arden please use 12X and disembark at the Gate House stop.

For information on buses to the University from Coventry bus station (Pool Meadow) or Coventry rail station please see <http://nxbus.co.uk.coventry>

By Air:

Birmingham International Airport is approximately 20 minutes away and connects to many international cities. A taxi from here will cost around £30.00. London Heathrow, London Luton and London Stansted are all less than 2 hours away. East Midlands Airport is less than an hour away. Prices may vary.

More detailed directions and a travel planning tool can be found [here](#).

Registration

The meeting registration desk will be set up in the reception area at Scarman House on 25th April for those arriving on this date, but will be in The Slate on 26th and 27th April.

Accommodation

Accommodation is split between [Arden House](#), [Scarman House](#) and [Radcliffe](#) at [Warwick Conferences](#).

Rooms will be available from 15:00 on your day of arrival, and check out is at 10:00.

Scarman, Radcliffe and Arden will be happy to store your luggage in their storage facilities. Please speak to a member of the team at reception for assistance. There are no luggage storage facilities available in The Slate, therefore please store your luggage at the venue where you will be staying.

Wi-Fi

Wi-Fi is complimentary and can easily be accessed via the Warwick Guest network.

Please check the details online via this link

<http://www2.warwick.ac.uk/services/conferences/guestinfo/wifi-businesscentres/> or contact Reception.

Travel Expenses

We will cover reasonable travel expenses for UK users and delegates from the ILL attending the meeting. Expense claim forms will be available during the meeting and can also be sent to attendees after the conference.

Student Day and Student Poster Session

The Student Day organising committee will be in touch to confirm whether or not you have been selection to give a talk during the student day.

Posters

For those who will bring posters, we kindly request that you bring this in size A0 portrait.



KEY TO SYMBOLS

- Accommodation
- Main buildings
- Bus Stop
- Construction zones
- i Information totem
- ♂ Male, female, disabled
- ♀ Male, female, disabled (inc. baby change)
- Pay and display parking
- Multi-storey pay and display parking
- Pay and display parking (Without accessibility parking)
- Shopping on campus
- Sustrans cycle route
- Taxi rank

Please visit warwick.ac.uk/kcm/ for updates on travel to, from and around campus.

UK Neutron and Muon Science and User Meeting 2018 – Scarman House and the Slate, Warwick

	Wednesday 25 April Student Day (for UK PhD students using neutrons or muons in their research)	Neutron and Muon Science and User Meeting arrivals
11:00	Registration - reception area at Scarman House	
12:00	Lunch - Lakeview Restaurant	
13:00	Welcome - Tiered Lecture Theatre at Scarman House	
13:10	Session I - Group Talks	
14:10	<i>Short Break</i>	
14:25	Session I – Student Talks	
15:25	<i>Coffee - Coffee Lounge</i>	
15:55	Session II – Group Talks	
16:55	<i>Short Break</i>	
17:10	Session II – Student Talks	
18:10	<i>Free time</i>	
18:30		Registration open – reception area at Scarman House
19:00	Student Dinner – Courtyard – with guest speaker	
19:30-21:00		Buffet Dinner - Lakeview Restaurant

Thursday 26 April – Science Day

08:30	<i>Registration and coffee – The Slate Main Reception and Slate 2 for coffee</i>				
<i>Plenary session – Slate 1</i>					
09:00	Welcome: Donna Arnold (Kent University) – Session chair				
09:10	Plenary: Simon Titmuss (Edinburgh University): Bacteria, viruses & chocolate				
09:40	Plenary: Emma McCabe (Kent University): Ferroic orders in corundum-derived materials				
10:00	Plenary: David Lennon (Glasgow University): The application of neutron scattering to investigate the surface chemistry of heterogeneously catalysed reaction systems				
10:30	<i>Coffee – Slate 2</i>				
<i>Parallel Sessions (individual breakout rooms)</i>					
	Functional Materials Scarman Space 29	Magnetism & Superconductivity Scarman Space 42	Biosciences & Soft Matter Scarman Space 31	Chemistry & Catalysis Scarman Space 11	Engineering Scarman Space 25
11:00	<p>11.00 Simon Hibble (Oxford): <i>Transition metal cyanides: Negative thermal expansion in 1, 2 and 3-dimensions</i></p> <p>11.30 Marek Szablewski (Durham): <i>μsr as a probe of properties of functional salts of TCNQ</i></p> <p>12.00 Anne Guilbert (Imperial College London): <i>Insight into the dynamics of organic photovoltaic active layer: a combined approach of neutron scattering and atomistic simulations</i></p> <p>12.30 Yimin Chao (East Anglia): <i>A Muon study on microscopic conduction of electrons in thermoelectric hybrid silicon nanostructures</i></p>	<p>11.00 Tom Lancaster (Durham): <i>Using muons to explore physics in reduced dimensions: spin ladders and skyrmions</i></p> <p>11.30 Steven Bramwell (UCL): <i>Coulomb and Harmonic Phases in Spin Ice and Polar Liquids</i></p> <p>12.00 Henrik Jacobsen (Oxford): <i>Spin dynamics and exchange interactions in CuO measured by neutron scattering</i></p> <p>12.30 Sean Giblin (Cardiff): <i>Equilibrium and Entropy in the spin ice Dy₂Ti₂O₇</i></p>	<p>11.00 Ali Zarbaksh (Queen Mary London): <i>Study of nanogels at interfaces</i></p> <p>11.30 Richard Campbell (Manchester): <i>Controlling reservoir formation in spread polyelectrolyte/surfactant films at the air/water interface</i></p> <p>12.00 Nathan Zaccai (Cambridge): <i>Neutron reflectometry studies of clathrin-mediated endocytosis</i></p> <p>12.30 Nicolas Coquelle (ILL): <i>Neutron macromolecular crystallography at ILL: current opportunities and perspectives</i></p>	<p>11.00 Sanghamitra Mukhopadhyay (ISIS): <i>Mechanism of ferroelectricity in organic ferroelectrics from neutron scattering and first-principles simulations</i></p> <p>11.30 James Drewitt (Bristol): <i>Structure of aluminate melts by neutron diffraction with isotope substitution</i></p> <p>12.00 John Holbrey (Queen's Belfast): <i>Imaging proton-transport pathways in acid+base 'ionic liquid' mixtures</i></p> <p>12.30 Oliver Hammond (Bath): <i>Time-resolved studies of nanoparticle assembly in a deep eutectic solvent</i></p>	<p>Chair: Saurabh Kabra</p> <p>11.00 Richard Moat (Open University): <i>TBD</i></p> <p>11.25 Yiqiang Wang (CCFE): <i>A multi-scale experimental study of elastic follow-up influence on creep deformation</i></p> <p>11.50 Llion Evans (CCFE): <i>Peering into the seemingly impenetrable: neutron vs X-ray tomography of fusion energy tungsten components</i></p> <p>12.15 Anthony Reid (Sheffield): <i>Qualitative Mapping of Axial Plastic Zone for Roller Bearing Overloads using Bragg Edge Transmission Imaging</i></p> <p>12.40 Přemysl Beran (ESS): <i>How to brew a good BEER - engineering diffraction instrument at ESS</i></p>
13:00	<i>Lunch – The Slate</i>				
14:15	<p>14.15 Jhuma Sannigrahi (ISIS): <i>Structural and magnetic diversity of 3d transition metal pyrovanadate, M₂V₂O₇ (M=Mn, Co, Cu)</i></p>	<p>14.15: Chris Stock (Edinburgh): <i>Spin-orbit to itinerant fluctuations in CoO</i></p>	<p>14.15 Valeria Arrighi (Heriot-Watt): <i>Effect of topology on local dynamics. Linear Chains, Ring and Star Polymers</i></p>	<p>14.15 Natasha Rhys (Oxford, ISIS): <i>Probing the atomic-level structure of pharmaceuticals in solution</i></p>	<p>Chair: Winfried Kockelmann</p> <p>14.15 Saurabh Kabra & Tung Lik Lee (ISIS): <i>Updates about the new engineering instrument E-MAP</i></p>

	<p>14.45 Holly Hedgeland (Open University): <i>Neutrons and neutral atoms: perspectives on the motion and friction of molecules at surfaces</i></p> <p>15.15 Nik Reeves-McLaren (Sheffield): <i>Lithium Diffusion in Complex Spinel Oxides</i></p>	<p>14.45 Oleg Petrenko (Warwick): <i>Magnetic States in Rare-Earths Tetraborides HoB_4 and NdB_4</i></p> <p>15.15: Paul Freeman (University of Central Lancashire): <i>Intermediate Magnetic Phase of Charge-Stripe Ordered $\text{La}_2\text{NiO}_{4.11}$ and the trigger for static magnetic ordering</i></p>	<p>14.45 Maria Paula Marques (Coimbra): <i>Rational Drug Design: Water - a Potential New Target for Chemotherapeutic Intervention?</i></p> <p>15.15 Adam Squires (Bath): <i>New tools for 1-D self-assembly: studying protein fibril growth in solution with small-angle neutron scattering</i></p>	<p>14.45 Andrea Piovano (ILL): <i>Exploring the surface chemistry of supported metal nanoparticle catalysts by neutron spectroscopy</i></p> <p>15.15 Alexander O'Malley (Cardiff): <i>Insights into microporous catalysis from quasielastic neutron scattering</i></p>	<p>14:25 Duncan Atkins (ILL): <i>NeXT-Grenoble - Neutron and X-ray Tomography at the ILL</i></p> <p>14.45 Manuel Morgano (ESS): <i>Neutron imaging at pulsed sources: the ODIN project</i></p> <p>15.05 Ranggi Ramadhan (Coventry University): <i>Non-destructive residual stress evaluation of aircraft components with neutrons</i></p> <p>15.25 Anna Fedrigo (ISIS): <i>Neutron diffraction for cultural heritage studies: the Italian Neutron Experimental Station INES</i></p>
15:45	<i>Coffee – Scarman Lounge</i>				
16:10	<p>16.10 Siân Dutton (Cambridge): <i>Lanthanide borates and garnets for low temperature magnetocalorics</i></p> <p>16.40 Discussion</p>	<p>16:10 Monica Ciomaga Hatnean (Warwick): <i>Frustrated magnetism in rare earth zirconate and hafnate pyrochlores</i></p> <p>16.40 Discussion</p>	<p>16.10 Rachel Evans (Cambridge): <i>Using SANS to design Nanostructured Inks for Low-Cost Manufacturing of Flexible Organic Solar Cells</i></p> <p>16.40 Discussion</p>	<p>16.10 Josh Makepeace (Oxford): <i>Structural insights into the lithium imide ammonia decomposition catalyst</i></p> <p>16.40 Discussion</p>	<p>Chair: Tung Lik Lee</p> <p>16.10 Stephen Nneji (ISIS): <i>Sample Alignment on Engineering Diffractometers : Potential and Challenges</i></p> <p>16.30 John Bouchard (Open University): <i>International Stress Engineering Centre (I-SEC), an overview and consultation</i></p> <p>16.50: Discussion</p>
<i>Plenary Session – Slate 1</i>					
17:20	ISIS Instrument Development Projects – Russell Ewings & Dave Keen				
17:40	ILL Instrument Development Projects – Mark Johnson				
18:00-19:00	<i>Student poster session with drinks – Slate 2</i> <i>Instrument and sample environment posters also on display</i>				
19:30	<i>Conference dinner – Scarman</i>				

Friday 27 April – User Meeting	
Chair: Jayne Lawrence (Manchester)	
<i>The Slate 1</i>	
09:00	Plenary: ISIS Impact awards Andrea Lazzarini (Oslo): Neutrons for Catalysis: the case of activated carbons Alan Williams (Wallace Collection):
09.40	Update from STFC and UKRI – Mark Thomson (STFC Executive Chair)
10.10	Update from facilities – ESS – Andreas Schreyer (ESS Director for Science)
10:30	Update from facilities – ILL – Mark Johnson (ILL Head of Science, UK Associate Director)
10:50	<i>Coffee - Slate 2</i>
11.20	Update from facilities – ISIS – Robert McGreevy (ISIS Director)
11:40	Update from facilities – Diamond – Andy Dent (Deputy Director, Physical Sciences)
12.00	Table discussions
12:15	Panel Q&A
12:30	Student Poster Prize awards and talks
13:00	Closing remarks
13:15	<i>Lunch – The Slate</i>

For Diaries!

The 2019 UK Neutron and Muon Science and User Meeting will be held in Warwick,

29 April – 1 May 2019

We look forward to seeing you there!