ISIS Facility Development Studentships – Studentships Awarded

2017 Call

University	*University supervisor*	*ISIS supervisor*	*Project title*
Warwick	Mark Fenn	Nick Funnell	Pressure Tuning of Order-Disorder Behaviour in Functional Materials
Edinburgh	Chris Stock	Russell Ewings	A pre-characterisation facility for all excitations users developed through a study of quasiparticle breakdown in new relaxor ferroelectrics
RHUL	Keith Refson	Toby Perring	Advanced first-principles methods for modelling spin excitations
UCL	Hidekazu Kurebayashi	Nina Steinke	Correlations between local magnetism and spin-orbit transport physics in novel spintronic multi-layers
Glasgow	Serena Corr	Peter Baker	In operandi Li-ion diffusion measurements at the EMU beamline on Li- and Na-ion batteries
Newcastle	Ian Metcalfe	Martin Jones	Neutron diffraction to monitor the state of non-stoichiometric solids under reaction conditions
Liverpool	Lucy Clark	Goran Nilsen	In Pursuit of the Kitaev Quantum Spin Liquid: Developing ISIS Crystal Growth Facilities for the Discovery of Metal-Organic Framework Analogues of Quantum Materials and Beyond
Oxford	Preston/Sansum	Luke Clifton	Combining Molecular Dynamics and Neutron Reflectometry Techniques to Understand Lipid Transfer Protein Binding Events at the Membrane Interface
Exeter	Karen Hudson-Edwards	Dominc Fortes	Characterisation of Toxic Element-bearing Sulfate Minerals by Coupled Raman Spectroscopy-Neutron and Synchrotron Diffraction

2016 call

University	*University supervisor*	*ISIS supervisor*	*Project title*
Warwick	Don Paul	Adrian Hillier	Developing Elemental Analysis with Negative Muons at ISIS
Bath	Karen Edler	Luke Clifton / James Doutch	Polymer-stabilized phospholipid nanodiscs – Polymer:protein interactions
Leeds	Lorna Dougan	Alan Soper	Biological role of water under extreme conditions
Oxford	Moritz Riede	Rob Dalgliesh	Development of a Vacuum Deposition Chamber for In-situ Characterisation of Organic Thin Films using Neutron Scattering

Royal Holloway	Martin King	Becky Welbourn	Oxidation of organic material at a buried solid-liquid interface: Cloud-climate effects and a new community cell for neutron and x-ray experiments of same the interface
Cambridge	Howard Stone	Helen Playford	Total Scattering: A Powerful Tool for the Investigation of Short---Range Order in Alloy Systems

2015 call

University	*University supervisor*	*ISIS supervisor*	*Project title*
Leeds	Marrows	Langridge	Probing Room-Temperature Chiral Skyrmions and Bobbers with Polarised Neutrons
QMUL	Goff	Voneshan	Polarised neutron studies of excitations in the multi-ferroic hexagonal manganite $HoMnO_3$
UCL	Shearing	Kockelmann	Developing Capability for Neutron Imaging of Electrochemical Systems
Bath + Diamond	Salmon	Bull	Hot Science under Pressure
UCL + Diamond	Perkins	Doutch	Solution properties of glycans and oligosaccharides by scattering, and their conformational analyses by new CCP-SAS atomistic modelling methods.
Durham	Lancaster	Pratt	DFT+μ : solving the muon site problem
Southampton	Raja	Parker	Probing Multifunctional Active Sites for the Preferential Adsorption and Utilisation of CO2 through Neutron Scattering
Glasgow	Gregory	Smith	Microwaves in situ; rapid materials synthesis probed in real time with neutrons
Southampton + Diamond	Keyes	Burca	Development of correlative neutron and X-ray computed tomography to study fluid dynamics and structural deformation at the micro-scale in plant and soil systems
Edinburgh	Titmuss	Skoda / Clifton	Neutron reflectivity & complementary in situ techniques to determine how antimicrobial peptides actually work
St Andrews	Irvine	Jones	Development of Combined In situ Neutron Diffraction and Electrochemical Studies

2014 call

University	*University supervisor*	*ISIS supervisor*	*Project title*
Reading	Christian Pfrang	Max Skoda	
Bath	Karen Edler	Daniel Bowron	
UCL	Richard Catlow, Chris Hardacre	Stewart Parker	Catalytic Reaction Cells for Spectroscopy and Diffraction
Newcastle	Lakey	Luke Clifton	Creating realistic models of bacterial outer membrames for antimicrobial research and diagnostic assay development
Coventry	Fitzpatrick	Winfried Kockelmann	Development and applicationof neutron imaging for strain mapping in aerospace applications
Reading	Powell	Steve Hull	In-situ characteristicisation of high performance thermolelectric materials
Edinburgh	Guthrie	Craig Bull	High pressure studies of magentism using diamond anvil cells
Reading	Squires	Ann Terry	Enhancing energy through optical/neutron synergY (EBONY)
Royal Holloway	Refson	Pas Manuel	DFT Methods for Complex Magnetic Systems
Oxford	Hesjedal	Nina Steinke	Magnetic Order in Topological Insulators
Oxford	Goodwin	Ross Stewart	Unconventional Neutron Scattering Analysis for Unconventional Magnetic Order
Cranfield	Mehmanparast	Joe Kelleher	The influence of residual stresses on the structural integrity of renewable energy marine structures
Edinburgh	Spagnolo	Luke Clifton	
Sheffield	Mostafavi	Saurabh Kabra	Stroboscopic mapping of dynamic strain field in in-situ loaded moving parts
Bristol	Hayden	Russell Ewings	Correlated electrons under uniaxial stress
Edinburgh	Pulham	Bill Marshall	High pressure studies of Energetic Co-crystals