

# CONEXS Conference 2020

Emerging Trends in X-Ray Spectroscopy

<h2 style="margin: 0;">Day 1</h2> <h1 style="margin: 0;">Tuesday 18<sup>th</sup> February</h1> <h3 style="margin: 0;">Newcastle University Business School</h3>	
<b>11:00</b>	<p><b><u>Registration, Teas and Coffees</u></b> Partners' Room 8<sup>th</sup> Floor, Newcastle University Business School</p>
<b>11:30</b>	<p><b><u>Lunch</u></b> Partners' Room</p>
<b>12:30</b>	<p><b><u>Welcome and Introduction</u></b> Partners' Room <b>Tom Penfold, Newcastle University</b> <b>Sofia Diaz-Moreno, Diamond Light Source</b></p> <p><b><u>Keynote 1</u></b> <b>John Rehr, University of Washington and SLAC National Accelerator Laboratory</b> 'Perfecting the Theory and Interpretation of X-ray Spectra'</p>
<b>13:30</b>	<p><b><u>Presentations</u></b> <b>Andrei Sapelkin, Queen Mary University of London</b> 'Model-free analysis of EXAFS data'</p> <p><b>Johannes Lischner, Imperial College London</b> 'Accurate absolute core-electron binding energies of molecules, solids and surfaces from first principles'</p>
<b>14:30</b>	<p><b><u>Break</u></b></p>
<b>15:00</b>	<p><b><u>Keynote 2</u></b> <b>Jakub Szlachetko, Institute of Nuclear Physics, Polish Academy of Sciences</b> 'Core-level spectroscopy with stochastic X-ray pulses'</p>
<b>16:00</b>	<p><b><u>Presentations</u></b> <b>Bruce Weaver, Imperial College London</b> 'New approaches to the measurement of attosecond photoemission dynamics in materials'</p> <p><b>Daniel Higley, SLAC National Accelerator Laboratory</b> 'Potential of Photoelectron Spectrometry for Analysis of X-rays in Measurement of Resonant Inelastic X-Ray Scattering Spectra'</p>
<b>17:00</b>	<p><b><u>Keynote 3</u></b> <b>Olga Safonova, Paul Scherrer Institute</b> 'Catalysis research at SuperXAS beamline'</p>
<b>18:00</b>	<p><b><u>Poster Session and Drinks Reception</u></b> Bealim House</p>

# Day 2

## Wednesday 19<sup>th</sup> February

### Urban Sciences Building

<b>08:30</b>	<p><b><u>Registration, Teas and Coffees</u></b> Exhibition Area Ground Floor, Urban Sciences Building</p>
<b>09:00</b>	<p><b><u>Presentations</u></b> Event Space G.003</p> <p><b>Tetsuo Katayama, Japan Synchrotron Radiation Research Institute</b> ‘Overview and perspective of ultrafast time-resolved X-ray spectroscopies at SACLA’</p> <p><b>Yohei Uemura, Paul Scherrer Institute</b> ‘Ultrafast dynamics in photoexcited states of photocatalysis/photoelectrodes studied by transient x-ray absorption spectroscopy in XFELs’</p>
<b>10:00</b>	<p><b><u>Keynote 4</u></b> <b>Matthias Bauer, University of Paderborn</b> ‘Slow and ultrafast XES to understand base metal complexes in photocatalytic proton reduction’</p>
<b>11:00</b>	<p><b><u>Break</u></b></p>
<b>11:15</b>	<p><b><u>Presentations</u></b></p> <p><b>Conor Rankine, Newcastle University</b> ‘Teaching X-Ray Spectroscopy to a Deep Neural Network: Instantaneous Predictions of XANES via Machine Learning’</p> <p><b>Ben Spencer, University of Manchester</b> ‘Extending photoelectron spectroscopy into the bulk using Hard X-rays (HAXPES)’</p>
<b>12:15</b>	<p><b><u>Lunch</u></b></p>
<b>13:00</b>	<p><b><u>Presentations</u></b></p> <p><b>Russell Egdell, University of Oxford</b> ‘Final State Screening in Core Level Photoemission of Dilute Electron Metals: an Ongoing Problem after 40+ Years of Debate’</p> <p><b>Silvia Haneklaus, Julius-Kuehn Institute</b> ‘Tracking of leaf uptake and transport of elemental and oxidised sulphur by means of wavelength dispersive X-ray fluorescence spectroscopy’</p> <p><b>Kevin Lovelock, University of Reading</b> ‘Electronic Structure of Ions in Solution using the Core-Hole Clock: Ions in Molecular Solvents versus Ions in Ions’</p>

14:30	<p style="text-align: center;"><b><u>Keynote 5</u></b>  <b>Anna Regoutz, University College London</b>  ‘Core Level Photoelectron Spectroscopy - Experiment and Theory’</p>
15:30	<p style="text-align: center;"><b><u>Break</u></b></p>
15:45	<p style="text-align: center;"><b><u>Keynote 6</u></b>  <b>Serena DeBeer, Max Planck Institute for Chemical Energy Conversion and Cornell University</b>  ‘The Evolution of Electronic Complexity in Biology: Advanced X-ray Spectroscopic Studies of Iron Sulfur Clusters’</p>
16:45	<p style="text-align: center;"><b><u>Presentations</u></b></p> <p style="text-align: center;"><b>Michael Baker, University of Manchester</b>  ‘Unraveling the Electronic Structure of a Linearly Coordinated Transition Metal ion using L, K-edge Absorption and K<math>\beta</math> Emission Spectroscopy’</p> <p style="text-align: center;"><b>Christian Bressler, University of Hamburg</b>  ‘Ultrafast X-Ray Spectroscopy at the Femtosecond X-Ray Experiments (FXE) Instrument at European XFEL’</p>
17:45	<p style="text-align: center;"><b><u>Close</u></b></p>
19:00	<p style="text-align: center;"><b><u>Conference Dinner</u></b>  The Biscuit Factory</p>

# Day 3

## Thursday 20<sup>th</sup> February

### Urban Sciences Building

<b>08:45</b>	<b><u>Registration, Teas and Coffees</u></b> Exhibition Area Ground Floor, Urban Sciences Building
<b>09:15</b>	<b><u>Presentation</u></b> Event Space G.003 <b>Nick Besley, University of Nottingham</b> ‘Simulating Resonant and Non-Resonant X-ray Emission Spectroscopy’
<b>10:00</b>	<b><u>Keynote 7</u></b> <b>Sonia Coriani, Technical University of Denmark</b> ‘‘Theoretical beamlines’’ for x-ray spectroscopy & scattering’
<b>11:00</b>	<b><u>Break</u></b>
<b>11:15</b>	<b><u>Keynote 8</u></b> <b>Marius Retegan, European Synchrotron Radiation Facility</b> ‘Chemical Sensitivity in the X-Ray Emission Spectroscopy of Iron Compounds’
<b>12:15</b>	<b><u>Closing Remarks</u></b>
<b>12:30</b>	<b><u>Light Lunch</u></b>