

10<sup>th</sup> NExT PhD Workshop  
SEPnet Employer Panel - Thursday 1 April 10.00-12.00

**Please read the following biographical details before the SEPnet Employer Panel session so you can prepare some questions for our panellists.**

### **Biographical Details**

#### **Tom Babbedge**

After obtaining a PhD in Extragalactic Astrophysics from Imperial College London in 2004, Dr Babbedge worked as a post-doctoral researcher at Imperial and a visiting researcher at Caltech. During this time he aided guitarist Brian May in completing his PhD following a 40 year Queen-induced hiatus from his studies. In 2007 he joined Winton Capital Management where he worked as a Senior Researcher, Head of Investment Analytics and Personal Researcher for David Harding (Founder). In 2016 he joined GreshamQuant within Gresham Investment Management to develop Alternative Market strategies as Chief Scientist and Deputy Head of Systematic Strategies.

#### **Cassie Hill**

I joined AWE in 1998 with an MPhys from the University of Birmingham. I initially worked on a computer code to calculate X-ray absorption in plasmas. I then ran a small team who were responsible for modelling the properties of high-density plasmas and worked closely with experimentalists on the Orion laser interpreting experimental data. I'm currently a group leader for a mixed group of theoretical and experimental physicists who are working on improving our knowledge of a wide range materials properties, such as high-pressure equation of state and neutron and X-ray cross-sections.

#### **Sofia Marchesini**

Sofia Marchesini is a Material Engineer with expertise/interest in materials for energy storage, nanomaterials, 2D materials and carbonaceous materials. She joined the Surface Technology Group at the National Physical Laboratory in 2018 to develop analytical methods and standards underpinning the industrial exploitation of these materials.

Previously Sofia received a PhD from the Department of Chemical Engineering at Imperial College London where she was part of the Centre of Doctoral Training in the advanced characterisation of materials. At Imperial Sofia worked on developing novel boron nitride-based adsorbents for capturing CO<sub>2</sub> or separating chemical mixtures under the supervision of Dr Camille Petit and with the industrial partnership of BP-ICAM. Sofia was awarded the 2019 Founders' Award for the research performed during her time at Imperial.

Sofia received her Master's degree in Engineering of Materials from the University of Padua (Italy). During her Master's degree, Sofia spent six months in Paris at the University Paris Diderot (ITODYS laboratory). Sofia received a Bachelor's degree in Chemical and Materials Engineering from the University of Padua (Italy).

#### **Stewart Martin-Haugh**

Stewart has an MPhys in theoretical/computational physics from University of York and a PhD in experimental particle physics from University of Sussex. He currently works as a Staff Scientist in the Particle Physics Department at Rutherford Appleton Laboratory.

Stewart works on the software that filters data at the ATLAS experiment - without this filtering they would fill up every hard drive in the world within a few weeks and most of the information would be useless. Working at a UK national laboratory is a different

experience to a traditional academic career - he doesn't teach but can spend more time on research, at least in principle!

**Emma Ryan**

In my role as production lead for Applied Technology at Reaction Engines I direct efforts into setting up a production line manufacturing thin walled heat exchangers. This involves managing a team of around 20 people, ensuring that heat exchangers are repeatably made to budget, to time and to high quality. My first role at Reaction Engines was as a research engineer, developing novel manufacturing techniques for heat exchangers. I previously worked at Lockheed Martin UK in a similar role, industrialising wire and arc additive manufacturing for aerospace applications. I am also a technical author of an international standard (BSI EN ISO 6010) on feedstock material for additive manufacturing.

I am currently Events Co-Ordinator for the UK Mars Society, am an active member of the ASTM Committee F42, was a founding member of the Women in STEM committee at both Lockheed Martin and Reaction Engines and helped set up the first IOM3 accredited Student Materials Society. I have completed an engineering doctorate on improving the reproducibility of wire and arc additive manufacturing at the University of Surrey. I have also studied a BSc (Hons) in Physics at the University of Edinburgh where I specialised in astrophysics-based modules and had a summer internship at the Astronomy Technology Centre based at the Royal Observatory.

**Rosh Sellahewa** graduated from the University of Surrey with a PhD in Theoretical Nuclear Physics focussing on neutron stars and super-fluidity. Upon leaving academia in 2015 Rosh started off working in management consulting, giving project management support to major government clients. Rosh then moved to KPMG, one of the "big 4" professional services firms initially to give data management support in the software storage industry and then into the trader surveillance team.

Having gained experience as an Analyst, Rosh moved in 2017 from KPMG to Deloitte, another "big 4" firm, where he joined the Banking Analytics Team as an Assistant Manager providing analytics and modelling support to a range of financial services clients. Since joining, Rosh has been promoted twice – first to Manager and then subsequently Senior Manager – and now runs the Insurance and Investment Management & Private Equity analytics and modelling teams within audit and assurance. His focus is on interactive visualisations for the identification of fraud, prevention of customer harm and identification of risk.