



WoNDRS

CONFERENCE 2025

BOOKLET

The WoNDRS Conference will be held at the University of Liverpool on Monday 7th July 2025 and aims to foster a sense of community among graduate students and postdoctoral researchers from minority demographics. The proposed programme combines a mix of both industry and academic talks followed by a discussion panel. There will be a focus on outstanding work across all STEM subjects, encouraging researchers to engage in networking and allowing space for women and other gender minorities to be celebrated for their achievements.

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SPEAKERS

Speaker: Professor Rachel Bearon

Talk Title: *TBC*

Bio: Professor Rachel Bearon is Professor of Mathematical Biology and Executive Dean of the Faculty of Natural, Mathematical and Engineering Sciences at King's College London. She studied for her undergraduate and PhD degrees at the University of Cambridge before undertaking postdoctoral research in the Department of Biological Oceanography at the University of Washington, Seattle.



From 2005 to 2023, Rachel held academic posts in the Department of Mathematical Sciences at the University of Liverpool, progressing from lecturer to professor and serving as Head of Department from 2020 to 2023.

Rachel is a Fellow of the Institute of Mathematics and its Applications (IMA) and a Trustee of the Academy for Mathematical Sciences. She currently sits on the Academy's Executive Committee during its set-up phase, leading the communication and advocacy workstream.

Her research lies at the interface of mathematics and biology, focusing on spatial and temporal dynamics of biological systems. Her work spans several applications, including bacterial chemotaxis, cancer cell motility, phytoplankton in turbulence, cell-signalling pathways, intracellular protein dynamics, and drug transport.

Speaker: Dr Holly Reeve

Talk Title: *Biocatalytic Hydrogenation for Sustainable Chemical Manufacturing "Developing skills to deliver impactful science"*

Bio: Holly completed an undergraduate MChem degree at the University of Oxford and remained in Oxford for her DPhil degree with Prof Kylie Vincent. While a Chemistry graduate student, Holly also attended courses at the Said Business School.



In 2016, Holly and Kylie were awarded £3m to take their hydrogen-driven biocatalysis research towards commercialisation. Holly took on a project management role, and in addition to leading a team of postdocs on ground-breaking scientific research, she also sought out training opportunities---gaining leadership qualifications and undertaking fellowships to develop new skills.

In 2021, Holly co-founded HydRegen, the start-up company that was spun out from her research at Oxford Chemistry, delivering cheaper, greener chemical manufacturing.

Holly is the CEO of HydRegen. She has grown the company from 2 to 16 people and raised >£3m in private investment and grant funding. HydRegen currently has a number of joint-development programs with major chemical manufacturers, and expect to reach commercial manufacturing in 2027.

Speaker: Diane Hardy

Talk Title: *Driving sustainability in the coating industry*

Bio: Diane is a development Chemist in the Long-Term Development (LTD) department of Beckers Industrial Coatings Ltd. and graduated from the Institute ITECH Engineering School in 2015, achieving a BSc in Chemistry.



Diane has worked within the coatings sector at Beckers for over 10 years, having experience in Industrial Coatings (IC) in Montbrison, before relocating to the Liverpool site to work on the novel fields of ultraviolet (UV) and Electron Beam (EB) construction coatings. With a strong focus on sustainability, UV & EB coatings are pioneering technology in the effort to decarbonise the coil coating industry by removing the necessity of Volatile Organic Compounds (VOCs) in coating formulations.

She is also passionate about promoting inclusivity within her role, having recently taken the role of Diversity, Equity and Inclusion (DEI) Ambassador.

Speaker: Dominika Vasilkova

Talk Title: *TBC*

Bio: Dominika Vasilkova completed her PhD in particle physics at University College London in 2023 and subsequently joined the University of Liverpool as a postdoctoral researcher. She specialises in muon physics, contributing to the Muon g-2 experiment at Fermilab in Chicago and the muEDM experiment at PSI in Switzerland.

Her research focuses on tracking detectors, the search for the muon electric dipole moment, and probing the limits of the Standard Model. She is actively involved in producing world-leading precision measurements and is preparing to publish a new result in the near future.

Speaker: Saba Khan

Talk Title: TBC

Bio: Saba Khan is an experienced biomedical scientist with nearly 20 years in the field. She earned her degree in Biomedical Sciences from the University of Manchester in 2008, beginning her career in the NHS as a Medical Laboratory Assistant at Stepping Hill Hospital. Seeking new challenges, she transitioned into research at the University of Manchester, where she worked across a range of fields including stem cell biology, cancer research, immunology, and biotechnology.

She found a particular passion for SARS-CoV-2 research, and during the COVID-19 pandemic, she joined the UK Health Security Agency. There, she played a key role in establishing national and international COVID-19 screening laboratories and advancing laboratory automation.

Today, she supports biotech start-ups, helping to bring innovative technologies from concept to market. She is also the co-founder of *NorthWest Women in STEM*, a non-profit organisation dedicated to empowering women in science, technology, engineering, and mathematics. The organisation provides a supportive community through webinars, workshops, and networking opportunities, aiming to address the real challenges faced by women in the field.

In recognition of her contributions, Saba Khan was *Highly Commended* in the University of Manchester's *Making a Difference Awards* in the Alumni Social Responsibility category.

Speaker: Dr Esther Garcia-Tunon Blanca

Talk Title: *My Path Through Motherhood and Multidisciplinary Research at the Interface of Materials, Chemistry, and Engineering*

Bio: Dr. Esther García-Tuñón is a UKRI Future Leaders Fellow and Senior Lecturer in Materials Science and Engineering within the School of Engineering and the Materials Innovation Factory at the University of Liverpool. She holds a PhD in Materials Science from the University of Santiago de Compostela, Spain, and is a Chemical Engineer by training.

Her journey to the UK began in 2011 with a Fundación Barrié Fellowship, leading to postdoctoral research at the Centre for Advanced Structural Ceramics, Imperial College London. Esther became a Lecturer at the University of Liverpool in 2017 and secured her UKRI FLF in 2021.

Esther's research aims to bridge advanced materials discovery and manufacturing, with a focus on the design and understanding of complex fluids for 3D printing applications. Her research on yield stress fluids combines bulk rheological measurements with direct visualisation of local flows and structural transitions.



AGENDA



10:30 – 16:30
Central Teaching Laboratories,
Liverpool, L69 7ZD

16:30-18:00
The Oliver Lodge, Oxford Street,
Liverpool, L69 7ZE

Morning I**10:15-10:30**

Welcome and Introduction

Morning II**10:30-12:10**Talk I – Rachel Bearon – *Mathematical Biology*

40 mins

Talk II – Holly Reeve – *Inorganic Chemistry*

40 mins

Talk III – Diane Hardy – *Chemistry*

20 mins

Free Lunch & Poster Session**12:20-13:30****Afternoon I****13:30-14:30**Talk IV – Dominika Vasilkova - *Physics*

20 mins

Talk V – Saba Khan - *Biotechnology*

20 mins

Talk VI – Esther Garcia-Tunon – *Materials Science & Engineering*

20 mins

Coffee Break & Poster Session**14:30-15:30****Afternoon II****15:30-16:30**

Panel Session

*Laura Gardiner, Esther Garcia-Tunon, Tracey Berry & Mara Chiricotto***Afternoon III****16:30-18:30**

Networking & Drinks Event



STATEMENTS

ACCESSIBILITY STATEMENT

WoNDRS pledges to create an accessible, welcoming environment for all involved. Should you need any of the provided resources in alternate forms, please contact us and we shall do our best to meet your needs. The event will be fully wheelchair accessible but please inform us so we can prepare the entrance for the networking event accordingly. Both buildings that will be used have lifts and the majority of rooms to be accessed are on the ground floor. There is a designated quiet area, Lecture Theatre B in CTL, that will be signposted on the day. If there is any information regarding our accessibility practices on this, or if you require any assistance, please contact us through: WoNDRS_conference@proton.me

DATA PRIVACY NOTICE

In order to process your application and registration for WoNDRS 2024, we collect some personal information, including information on your experience and on characteristics protected by law. This statement details the basis for collecting this information, and what we do with it. The processing of your data is necessary for the purposes of the legitimate interests of the University of Liverpool. This privacy statement outlines what this means in practice and explains how the University of Liverpool collects, stores, manages and protects your data.

Who will own my data once I submit it?

The University of Liverpool Why do you need my information? We need names and email addresses to be able to communicate with you about the WoNDRS 2024 conference. We need information on degree title, year of study and demographic information to allocate places at the conference and inform the programme. In addition, your information will be anonymised and used to compile statistical data on the demographics of applicants and eventual participants at WoNDRS 2024. This will be used to inform planning of future conferences and gain further sponsorship.

What allows you to use my information?

By completing the application form or registration form for WoNDRS 2024, you consent to us using this information. You also have the right to the rectification of the data we hold about you, to do so, please contact us. You also have the right to the erasure of the data we hold about you, to do so, please contact us.

Who will my information be shared with?

Your full data will be shared with WoNDRS 2024 Organising Team as listed on the conference website. In addition, your information will be anonymised and be used to compile statistical data on the demographics of applicants and eventual participants at WoNDRS 2024. We will never publish information that could identify an individual and we will never share information outside of the WoNDRS 2024 committee, except as outlined above.

Do I have to provide this information and what will happen if I don't?

Yes. Without the information we will be unable to contact you about the conference nor make informed decisions about allocating you a place at the conference. How long will you keep this data for and why? All individual responses will be deleted within one year of collection. How will my information be stored? The information will be stored on the University of Liverpool's Managed Windows System and SharePoint.

Will this information be used to make automated decisions about me?

The information provided will be used to allocate places and inform the programme at the WoNDRS 2024. This will be done by the WoNDRS 2024 Organising Team. They will use details of home institution, degree title, year of study and demographic information.

Will my data be transferred abroad and why?

No.

What rights do I have when it comes to my data?

Under the UK General Data Protection Regulation, you may have the following rights with regards to your personal data:

- The Right to subject access – you have the right to see a copy of the personal data that the University holds about you and find out what it is used for.
- The Right to rectification – you have the right to ask the University to correct or remove any inaccurate data that we hold about you.
- The Right to erasure (right to be forgotten) you have the right to ask the University to remove data that we hold about you.
- The Right to restriction – you have the right to ask for your information to be restricted (locked down) on University systems.
- The Right to data portability – you have the right to ask for your data to be transferred back to you or to a new provider at your request.
- The Right to object – you have the right to ask the University to stop using your personal data or to stop sending you marketing information, or complain about how your data is used.
- The Right to prevent automated decision making – you have the right to ask the University to stop using your data to make automated decisions about you or to stop profiling your behaviour (where applicable). Please note that not all rights apply in all situations.

To find out more about your rights under the UK GDPR, please visit the Information Commissioner's website.

To request a copy of your data or ask questions about how it is used, contact Dan Howarth, Data Protection Officer

- Email: legal@liverpool.ac.uk
- Post: Legal & Governance, University of Liverpool, Foundation Building, 765 Brownlow Hill, Liverpool L69 7ZX

Who can I complain to if I am unhappy about how my data is used?

You can complain directly to the University's Data Protection Team by writing to: Dan Howarth, Data Protection Officer

- By email: legal@liverpool.ac.uk
 - Post: Legal & Governance, University of Liverpool, Foundation Building, 765 Brownlow Hill, Liverpool L69 7ZX
- You also have the right to complain to the Information Commissioner's Office using the following details:

- The Information Commissioner's Office, Wycliffe House, Water Lane, Wilmslow, Cheshire SK9 5AF
- Telephone: 08456 30 60 60 or 01625 54 57 45
- Website: www.ico.org.uk To Contact the WoNDRS Organising Committee: Contact the whole team at:
- Website: <https://www.liverpool.ac.uk/science-and-engineering/outreach/WoNDRS/>
- Email: WoNDRS_conference@proton.me

DIVERSITY AND INCLUSIVITY STATEMENT

WoNDRS strives to create an environment and an equitable culture that is welcoming to anyone and that makes all participants feel respected and empowered. We believe that embracing inclusivity and inter-sectionalism will enrich our experiences with greater creativity, groundbreaking ideas, and success, as well as a broadening of our perspectives.

We recognize the importance of amplifying the voices of women and gender minorities in STEM of any background, as well as any race or ethnicity, sexual orientation, gender identity or gender expression, religion, disability, and socio-economic status. We strongly encourage the participation of any underrepresented group, as one of the main goals of our event is to create a safe and comfortable event that promotes an open conversation for participants to share their experiences and thrive.

Throughout the conference as well as the process of organisation, we commit to implementing the previous declaration by the following means:

- Cultivating an environment where inclusive language is implemented in order to respect all gender identities; Pronoun stickers will be provided for anyone who wishes.
- Run the event in facilities with accessibility conditions so that any individual with disabilities may fully attend with comfort and safety.
- Cultivate an inclusive environment where anyone can safely share their experience and be celebrated for all their characteristics.

We actively encourage all participants to uphold these principles so that we can all create an environment where we can all strive, create networks, and share knowledge and experiences in an inclusive and welcoming environment.

If you need to reach out regarding our diversity and inclusive practices, or if you require any assistance, please contact us through: WoNDRS_conference@proton.me

ENVIRONMENTAL AND SUSTAINABILITY STATEMENT

WoNDRS commits to promoting sustainable practices throughout the conference as well as its planning. We recognize the importance of operating in a way that minimizes the impact of our operations on the environment and future generations.

In order to fulfill the previous declaration, we commit to implementing the following means:

- Reduce carbon footprints by encouraging our participants to undertake public transportation.
- Minimize the waste of water by providing refilling stations to reduce single-use plastic bottles.

- Reduce our environmental impact by providing plant based catering
- Promote waste reduction and recycling by providing our best reusable or compostable materials and making available recycling stations through the conference venue.
- Prioritize the use of sustainable and ethically produced materials and merchandise, supporting local suppliers whenever possible.

By making sustainability a priority in our event, we aim to set an example for our participants and cultivate awareness for the importance of choosing sustainable products and environmentally friendly practices.

We encourage all our participants to uphold the previous practices so that we can all positively inspire each other and contribute to a more sustainable planet.

If you request any further information or wish to contribute with any suggestions for our environmental and sustainability practices, please don't hesitate to contact us.

WoNDRS Organisation Committee email address:

WoNDRS_conference@proton.me