



Engineering and  
Physical Sciences  
Research Council

# EPSRC Mathematical Sciences Update

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# Mathematical Sciences Team

Name	Role	Responsibilities
Sarah Harman	Head of Theme	Mathematical Sciences strategy and sign off of theme budget
Billy McGregor	Senior Portfolio Manager	Mathematical Physics portfolio, Monitoring and Evaluation, Programme Grants, TFS Champion
Marianne Rolph	Senior Portfolio Manager	Continuum mechanics portfolio, Institutes, Discipline Hopping, Uncertainty
Rebecca Williams	Senior Portfolio Manager	Mathematical biology, leadership in maths strategy, EDI, Maths of formulation and grants processing oversight
Chanattra Ammatmanee	Portfolio Manager	Statistics, Applied Probability and Operational Research portfolios, small grants
Emma Foxell	Portfolio Manager	Applied mathematics portfolio, fellowships and the early career research forum
Maiara P. Roberti	Portfolio Manager	Pure mathematics portfolio, SAT convenor, NSF Lead Agency Agreement, CDT contact, NIAs

# EPSRC invests in:

People	Places	Ideas	Innovation	Impacts
<p>Investing in people, skills and teams</p> <p>Embedding equality, diversity and inclusivity</p>	<p>Local, national and international partnerships, nurturing excellent research and strengthening clusters across UK nations and regions</p> <p>World-leading capital and digital infrastructure</p>	<p>Investing in 3 discovery research priorities:</p> <ul style="list-style-type: none"><li>• <b>Physical and Mathematical Sciences Powerhouse</b></li><li>• Frontiers in Engineering and Technology</li><li>• Digital Futures</li></ul>	<p>Co-working with business</p> <p>Connecting research and innovation</p> <p>Accelerating translation, commercialisation and knowledge exchange</p>	<p>Mission-inspired research with four priorities:</p> <ul style="list-style-type: none"><li>• Engineering Net Zero</li><li>• AI, Digitalisation and Data: Driving Value and Security</li><li>• Transforming Health and Healthcare</li><li>• Quantum Technologies.</li></ul>



# Senior leadership changes in EPSRC

- Professor Dame Lynn Gladden stepped down from her role of Executive Chair for EPSRC at the end of June 2023.
- Professor Charlotte Dean returned to UKRI in Jan 2024 as the new Executive Chair for EPSRC (Charlotte was previously Deputy Executive Chair of EPSRC and acted as UKRI's COVID-19 Response Director). Charlotte took over from Professor Miles Padgett who was the interim Executive Chair during the recruitment process.

# Community webinar - spread the word

- Charlotte Deane will be leading a webinar to introduce herself to the UK engineering and physical sciences community on **Thursday 25 April, 10:00–11:30**. The presentation will include some highlights and reflections on the progress made against the priorities laid out in the 2022-25 Strategic Delivery Plan, as well as a look to the year ahead.
- Following the presentation, there will be a Q&A session where Charlotte will be joined by other members of the Executive Board. Along with taking questions during the event, we would be pleased to receive them in advance via the registration form. Registration is open until Tuesday 23 April, 18:00.
- This event is open to all, so please do advertise the webinar across all of your relevant networks. Registration is open until Tuesday 23 April, 18:00.

# The Funding Service (TFS)

- From November 2023 there are no deadlines for submissions to responsive mode opportunities.
- Applicants are encouraged to apply when their application is ready.
- The Funding Service system requires a closing date and this will appear on the funding opportunity; do not wait for this date to submit your application as we will be processing applications on an ongoing basis.
  - We will batch applications for assessment and send them to the most appropriate responsive mode panel meeting when they reach this stage of the process.
  - We saw a surge in proposal numbers in summer 2023. We are now seeing a drop in demand, which will allow us some space to catch up on clearing proposals received last year.

# EPSRC transition to TFS: processing round one responsive mode opportunities

- We will be holding panels throughout spring and summer 2024 for round 1 responsive mode and fellowship applications.
- Our responsive mode panel meetings are: Engineering, Information and Communications Technology (ICT), Mathematical Sciences, and Physical Sciences.
- We will manage our budget across all the panels; there is no funding advantage to being processed earlier.
- Our budget was set by the spending review – due to the high volumes it is likely we will see lower success rates for these opportunities.

# Centres for Doctoral Training Announcement

- **Numbers of Centres for Doctoral Training funded: 65**
- **Total investment:** Over £1bn incl. over £589m from project partners
- **Number of students to be supported:** Over 4,400
- **Involving 48 Universities (33 as lead) across the CDTs**
- **Portfolio features:**
  - 5 CDTs in Maths – 1 pure, 2 applied, 2 statistics
  - Many other CDTs in maths-associated areas, such as healthcare, quantum information, quantum computation, fluid dynamics, data sciences, AI, risk, and uncertainty



# Our EDI Action Plan

	<b>Action Set 1</b>	Foster an inclusive and diverse research and innovation system and work in partnership with our community to support action
	<b>Action Set 2</b>	Embed inclusive practices in the way we work to reduce inequities across our portfolio and improve trust
	<b>Action Set 3</b>	Encourage and enable participation in engineering and physical sciences research careers through embedding EDI practice in our portfolio and the wider research community.
	<b>Action Set 4</b>	Increase diversity of voice in our advisory groups
	<b>Action Set 5</b>	Investigating the barriers to greater access and participation to provide better support for people in our community

# EDI Top Priorities

## New Partnerships for coordinated action

- **UKRI EDI Caucus (EDICa)** - with British Academy.
- Exploring **shared actions and working together with Learned Societies** on EDI challenges
  - **Royal Statistical Society/ATI** performing an independent investigation of our portfolio of research grants and **exploring potential bias in peer review**.
- Planning for EDI **going beyond 2025**

## Build communities of practice

- **EPSRC EDI Sharing Hub (£2.5 million)** – facilitate bringing together collective knowledge from across our community, enabling knowledge exchange of expertise, good practices and ‘what works’.
- Harnessing EPSRC resources & investments - **Inclusion Matters Outcomes Report** and **EDI Expectations**
- Empower, share, connect - **Regional Roundtables** focused on **inclusive selection practices**

## Improving accessibility & participation

- Removing barriers for researchers with disabilities to access and participate:
  - Independent audit of our engagement practices - **neuro-inclusion recommendations and toolkit**
  - Working with our large-scale national infrastructure investments to ensure **accessibility**.
  - Require **accessibility plans** as part of **strategic equipment** applications.

## Inclusive practice in peer review

- **Increasing diversity using positive action** within advisory teams, peer review panels and College
- Piloting a new role (PPO’s) on panels to **strengthen fair and objective decision making**
- Piloting **flexible models of leadership in our applications** (e.g. joint PL’s)
- Investigating the role of **university selection processes on our portfolio**

# Strategic Advisory Team

- Professor Helen Balinsky – HP
- **Professor Rachel Bearon - King's College London**
- **Dr Natasha Blitvic - Queen Mary University of London**
- **Dr Andrea Brini - University of Sheffield**
- Professor Helen Byrne – University of Oxford
- Professor Peter Challenor – University of Exeter
- Professor Idris Eckley – Lancaster University
- **Dr Joanna Jordan - Independent Industrial User of Mathematics**
- Professor Mark Kambites – The University of Manchester (**CHAIR**)
- Dr Alexander Kasprzyk – University of Nottingham
- Professor Jason Lotay – University of Oxford
- Dr Lisa McFetridge – Queen's University Belfast
- Dr Gueorgui Mihaylov – GSK
- Professor James Robinson – University of Warwick
- **Dr Vadim Zverovich - University of the West of England, Bristol**

Applicants in red were successful in the latest SAT recruitment exercise and joined the SAT on 01 April 2024

# Team priorities

- **Institute Renewal** - complete
- **Small Grants Review** – complete
- **Community engagement**, workshops, visits, advisory board meetings - ongoing
- **EDI**, including conclusion of neurodiversity audit - ongoing (audit report and toolkit will be shared with the community in due course)
- **Capturing the benefits of the work we fund**, including monitoring and evaluation of additional funding and outcomes strategy – in progress
- **Big Ideas development** (Mathematical Modelling for Next Generation Formulated Products NetworkPlus call under development) - in progress
- **Convening across disciplines**, embedding mathematical sciences across UKRI's investments, including UKRI's strategic themes and piloting discipline hopping – in progress

# Looking ahead for EPSRC

- National Academy for the Mathematical Sciences
- Better understanding the socio-economic impact of Mathematical Sciences research
- Making the strongest possible case for future funding



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# Thank you



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