



# International Workshop on Reliable and Sustainable Neuromorphic Hardware

**Dates:** 28–30 May 2025

**Location:** York, England

## Submission Information

- **Abstract length:** 2 pages
- **Submit at:** [tinyurl.com/48suh9dd](https://tinyurl.com/48suh9dd)
- **Deadline:** 17<sup>th</sup> March 2025
- **Presentation:** Oral presentation (selected abstracts) and posters

We are pleased to invite you to **submit abstracts** to the workshop on topics related to neuromorphic hardware.

Abstracts will undergo a **light-touch peer review**, and selected abstracts will be invited for **oral presentations or poster sessions**.

This workshop aims to bring together researchers and professionals from across the neuromorphic computing community and create an environment where **knowledge, experiences, and ideas flow freely to foster innovation at the intersection of neuromorphic hardware, sustainable computing, and reliability!**

**We look forward to your submissions and to an inspiring gathering in York in May 2025!**

## Keynote Speakers

- Prof Steve Furber CBE  
University of Manchester
- Prof Robin Hiesinger  
Free University Berlin
- Prof Shih-Chii Liu  
University of Zurich & ETH Zurich
- Dr Heba Bevan OBE  
UtterBerry
- Dr Andrew Mallinson  
Intel
- Dr Catherine Schuman  
University of Tennessee
- Dr Emre Özer  
PragmatIC
- Victoria Clerico  
IBM
- Prof Martin Trefzer  
University of York

## Key themes (but not limited to)

### Fundamentals

- Neuromorphic Architectures and Models
- Energy Efficiency and Sustainability
- Materials and Device Innovations
- Theoretical Foundations of Neuromorphic Computing
- Communication and Interconnect in Neuromorphic Systems

### Applications

- Neuromorphic Hardware for Edge Computing
- Real-Time Processing for Robotics and Autonomous Systems
- Vision and Audio Processing
- AI and Machine Learning with Neuromorphic Hardware
- Healthcare and Biomedical Applications
- Environmental Sensing and Monitoring
- Security and Cryptography

### Fault Tolerance

- Robustness in Neuromorphic Hardware Design
- Error Detection and Correction in Neuromorphic Systems
- Self-Healing and Adaptation/Learning Mechanisms
- Redundancy and Sparsity in Neuromorphic Systems
- Reliability Challenges in Neuromorphic Memory and Interconnects
- Thermal and Environmental Stability

## Co-chairs and Contact

Martin Trefzer, University of York, UK  
Jim Harkin, Ulster University, UK

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