Superconductivity CDT Partners

UKRI Engineering and Physical Sciences Research Council

ISIS Neutron and Muon Source

diamond

CERN

KIT Karlsruher Institut für Technologie

Tokamak Energy

OXFORD INSTRUMENTS

EMFL

HFML-FELIX

CRYOGENIC CRYOGENIC LIMITED

UK Atomic Energy Authority

ICE

LNCMI

VEIR

RAZORBILL INSTRUMENTS

HZDR HELMHOLTZ ZENTRUM DRESDEN ROSSENDORF

nationalgrid

SIEMENS Healthineers

can superconductors

NATIONAL HIGH MAGNETIC FIELD LABORATORY

CONECTUS

Clevedon School

Cambridge Academy for Science and Technology

QS

CFAS

https://superconductivity-cdt.ac.uk/

UNIVERSITY OF OXFORD

University of BRISTOL

UNIVERSITY OF CAMBRIDGE

SUPERCONDUCTIVITY CDT - LAUNCH EVENT

Martin Wood Lecture Theatre
Clarendon Laboratory
OXFORD PHYSICS
18 September 2024

https://oxfordsuperconductivity.web.ox.ac.uk

TALKS

Engineering and Physical Sciences Research Council

09.30 - 10.00 Coffee and registration and posters displayed

A. INTRODUCTION TO THE SUPERCONDUCTIVITY CDT (CHAIR: **AMALIA COLDEA**)

10:00-10:45 **Antony Carrington**, University of Bristol
Introduction to the Superconductivity CDT

10:45-11:00 **Questions and Answers - CDT Panel**

B. RESEARCH ACTIVITIES OF THE CDT COMMUNITY (CHAIR: **MALTE GROCHE**)

11:00-11:30 **Nigel Hussey**, University of Bristol
Fundamental Research on Superconductivity

11:30-12:00 **Susie Speller** University of Oxford
Superconducting Materials

12:00-12:30 **John Durell,** University of Cambridge
Superconducting Engineering and Applications

12:30-14:30 Lunch / Posters / Group Photo

C. PARTNER ENGAGEMENT WITH THE CDT (CHAIR: **STEPHEN HAYDEN**)

14:30-15:00 **Russell Ewings (STFC,RAL,ISIS) - large scale facilities**
Superconductivity research using neutrons and muons

15:00-15:30 **Greg Brittles (Tokamak Energy) - fusion**
Tokamak Energy's research objectives for Superconductivity CDT

15:30-16:00 **Stuart Wimbush (UK Atomic Energy Authority) - fusion**
Superconductivity for STEP

16:00-16:30 **Ben Bryant, Oxford Instruments - industry**
Superconductivity by researchers, for researchers

16:30-16:50 **M'hamed Lakrimi (Siemens Healthineers Magnet Technology) - industry**
Superconductivity for MRI magnets

16:50-17:00 **Questions and Answers session - Partners**

17:00-18:00 Drinks Reception / Posters
Event sponsored by Oxford Instruments

OXFORD INSTRUMENTS

18:00 Closing down of the meeting – Collection of posters

POSTERS

Department of Physics

UNIVERSITY OF OXFORD

D. POSTERS (9:30-18:00)

1. **Sian Tedaldi,** University of Oxford
   Graduate training in public engagement
2. **Siddharth Saxena,** University of Cambridge
   Emergent Quantum Phases and Multicritcality
3. **Simon Hall,** University of Bristol
   Morphological control and doping of High-Tc superconductors
4. **Christopher Bell,** University of Bristol
   Heavy element thin films, devices and microstructured materials
5. **William Iliffe,** UK Atomic Energy Agency (UKAEA)
   STEP's plan for understanding REBCO coated conductors in the Fusion Environment
6. **Shuqiu Wang,** University of Bristol
   Atomic-scale visualisation and identification of electronic structures in spin-triplet superconductors at mKs
7. **Jun Ma,** University of Bristol
   R&D towards industrial applications based on HTS REBCO coated conductors
8. **Felix Flicker,** University of Bristol
   Lifshitz transition enabling superconducting dome around a charge-order critical point
9. **Qi Wang,** University of Cambridge
   Magnetisation and demagnetisation of trapped field stacks in a superconducting machine for electric aircraft
10. **Sven Friedemann,** University of Bristol
    Transport, and Structural Studies of High-Pressure superconductor La3Ni2O7
11. **Mustafa Bakr,** University of Oxford
    Characterisation of a 16-Qubit Superconducting Device with Nearest- Neighbour Coupling
12. **Clara Barker,** University of Oxford
    Superconducting thin-films for quantum devices with off-line quality assessment
13. **Stephen Hayden,** University of Bristol
    Spin fluctuation in cuprate superconductors
14. **Amalia Coldea,** University of Oxford
    Iron-based superconductors. A versatile Superconducting Platform
15. **Amalia Coldea,** University of Oxford
    Oxford Centre for Applied Superconductivity. Experimental Capabilities in Oxford Physics