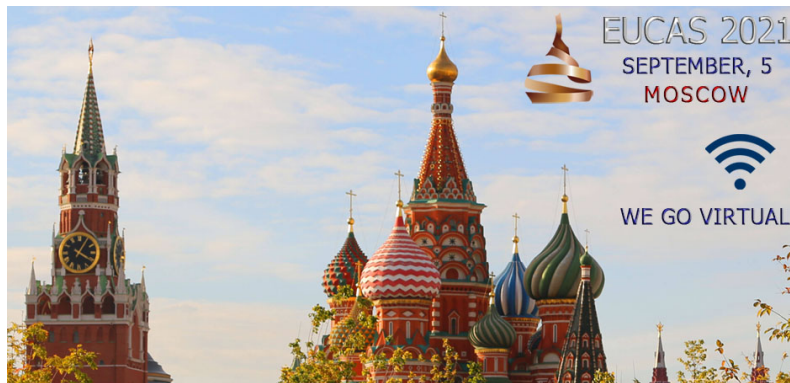


# EUCAS 2021 Abstract Submission



**Sunday 5 September 2021 - Friday 10 September 2021**

**DOVE TENTATIVE - The duration of the conference and Virtual Platform to be determined at**

**Scope of Conference & Submission Categories (tra**

## **Scope of the Conference**

EUCAS is a worldwide forum for scientists and engineers. The conference provides an ideal platform to share knowledge and the most recent advances in all areas of applied superconductivity: from large-scale applications to miniature electronics devices, with a traditional focus on advanced materials and conductors. The broad scope is at the same time a challenge and an opportunity to foster novel, inter-disciplinary approaches, and promote cross-fertilization among the various fields of applied superconductivity.

The Scientific Programme Committee has taken up this challenge and is devising a diverse and exciting programme. In line with the tradition of conferences on applied superconductivity, and following the successful experience, all papers presented at the conference are eligible for submission to a peer-reviewed special issue of IEEE Transactions on Applied Superconductivity.

Submissions may include:

Advances in applied superconductivity technology

The theory, experimental studies, methods of analysis and tests, design, manufacturing, and operation of superconducting devices or their components, and superconducting materials. Generic study of a non-superconducting technology, systems, or devices that fail to incorporate at least one of the criteria above might or might not be accepted for presentation at the Conference.

Application of superconducting devices and their components

Examples of such submissions include but not limited to studies of power grids with superconducting components, cryogenics, non-superconducting materials at cryogenic temperatures, power supplies, etc. These publications must contain a sufficient description of the superconducting device itself, or address specific issues of interfacing the superconducting device or component with the rest of the system, or description of the uniqueness of a superconducting device or component for the particular system application.

## **11. - Superconducting wires and tapes**

### **11.1 - Nb based composites**

### **11.2 - MgB<sub>2</sub> wires and tapes**

### **11.3 - Bi-oxides and Fe-based wires and tapes**

### **11.4 - Coated conductors**

## **12. - Superconducting materials and compounds**

## **12.1 - Metals, alloys and simple compounds**

## **12.2 - Cuprates and related materials**

## **12.3 - Fe-based materials**

## **12.4 - Thin films, artificial structures, multilayers (including buffer layers, templates...)**

## **12.5 - Bulk superconductors**

## **12.6 - Other materials including novel materials**

# **13. - Properties of superconducting materials**

## **13.1 - Basic properties (critical fields, critical temperature, ...)**

## **13.2 - Mechanical properties, strain sensitivity, thermal properties**

## **13.3 - Magnetization and AC loss**

## **13.4 - Critical current and flux pinning**

## **13.5 - Other properties**

## **13.6 - Measurement techniques**

# **21. - Superconducting magnets**

## **21.1 - Accelerator magnets and cables**

## **21.2 - Fusion magnets and cables**

## **21.3 - Detector magnets and cables**

## **21.4 - High fields, NMR magnets and cables**

## **21.5 - HTS magnets and cables**

# **22. - Electric power applications**

## **22.1 - Motors, generators and other rotating machines**

## **22.2 - Power transmission lines and cables**

## **22.3 - Transformers, SMES and fault current limiters**

# **23. - Other large scale applications**

## **23.1 - Superconducting RF**

## **23.2 - Levitation, transportation and propulsion**

## **23.3 - Magnetic separation and other applications**

## **23.4 - MRI and other medical applications**

## **23.5 - Application of new materials: bulk superconductors, Fe-based, etc.**

# **24. - Design, ancillaries and technology**

## **24.1 - Current leads**

## **24.2 - Quench and protection**

## **24.3 - Stability and AC loss**

## **24.4 - Magnet design and analysis**

## **24.5 - Electrical insulation materials and systems**

## **24.6 - Measurement techniques**

# **31. - Superconducting electronic devices and circuits**

## **31.1 - Josephson junctions**

## **31.2 - Digital circuits**

## **31.3 - Analogue circuits**

## **31.4 - Quantum information processing**

## **31.5 - Microwave devices**

## **31.6 - Other devices and applications**

## **31.7 - Electronic devices fabrication**

# **32. - Superconducting detectors**

## **32.1 - Transition edge sensors**

## **32.2 - Nanowire detectors**

## **32.3 - Junction based direct detectors**

## **32.4 - Coherent detectors and amplifiers**

## **32.5 - Novel Detectors**

# **33. - SQUIDs and sensors**

### **33.1 - SQUIDs and SQIFs; design and fabrication**

### **33.2 - Nano-SQUIDs**

### **33.3 - Applications and systems**