EUCAS 2021 Abstract Submission

Sunday 5 September 2021 - Friday 10 September 2021

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

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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 - MgB2 wires and tapes

11.3 - Bi-oxides andFe-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