Call for Papers

Special Section on Progress & Trend of Superconductor-based Computers

The IEICE (Institute of Electronics, Information and Communication Engineers) Transactions on Electronics announces a forthcoming special section entitled "Progress & Trend of Superconductor-based Computers," which will be published in June 2022.

Development of superconductor-based computers using Josephson junctions began around 1970, and various types of circuits have been proposed and demonstrated to date. In recent years, new superconductor-based computers such as quantum computers using qubits have been demonstrated, and expectations for the practical application of the superconductor-based computers are increasing. This special section will focus on the recent progress of the superconductor-based computing technologies.

1. Scope
This special session covers all research areas related to superconductor-based computers. The major topics of interest include, but not limited to:
- Rapid single flux quantum circuit
- Adiabatic quantum flux parametron circuit
- Quantum annealing with superconducting circuit
- Gate-based superconducting quantum computers
- Novel superconductor-based computers

2. Submission Instructions
The deadline for submission is June 18, 2021. The standard number of pages is 8 for a PAPER. The maximum number of pages of a Brief Paper is 4. The article processing charge is considerably higher for extra pages. Manuscripts should be prepared according to the guideline in the "Information for Authors". The latest version is available at the web site, https://www.ieice.org/eng/shiori/mokuji_es.html. The term for revising the manuscript after acknowledgement of conditional acceptance for this special section could be shorter than that for regular issues (60 days) because of the tight review schedule.

This special section will accept only papers by electronic submission. Prospective authors are requested to follow carefully the submission process described below.

Submit a paper using the IEICE web site, https://review.ieice.org/regist/regist_baseinfo_e.aspx. Authors should choose the [Special-SE] Progress & Trend of Superconductor-based Computers as a "Journal / Section" on the online screen. Do not choose [Regular-EC].

3. Inquiries:
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4. Special Section Editorial Committee
   Guest Editor-in-Chief: Satoshi Kohjiro (AIST)
   Guest Editor: Go Fujii (AIST)
   Guest Associate Editors: Nobuyuki Yoshikawa (Yokohama National Univ.), Takeshi Onomi (Fukuoka Institute of Technology), Taro Yamashita (Nagoya Univ.), Kunihito Inomata (AIST), Fumiki Yoshihara (NICT), Masamitsu Tanaka (Nagoya Univ.)

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* IEICE Transactions on Electronics requires authors to cite 30 or more references.