



IEEE International Conference on Communications
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Empowering Intelligent Communications

CALL FOR PAPERS

SELECTED AREAS IN COMMUNICATIONS SYMPOSIUM

DATA STORAGE TRACK

Track Chair

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Scope and Topics of Interest

Data storage systems have revolutionized information technology over the past several decades, evolving from punch cards, optical disks, hard disk drives, to flash memories, storage class memories, and distributed storage. As storage density increases, innovative signal processing and coding techniques are required to battle the higher noise and interferences. New storage class memories, such as phase change memories, spin-transfer torque (STT)-RAM, or ReRAM, are developed to fill the latency gap between Flash memories and magnetic disks. To take full advantage of these fast and large-capacity memories, many new challenges need to be met for almost every component in the data access path, including wearing leveling, error-correction coding, compression, etc. Also massive distributed storage system is the backbone of cloud computing, big data analytics, and many ubiquitous technologies. The design of high-speed and energy-efficient architectures allowing secure and reliable data access for such large-scale distributed storage systems is of critical importance.

The goal of the Data Storage (DS) Track of the Symposium on Selected Areas on Communications is to bring together researchers and technologists to exchange novel and significant results on fundamental and applied aspects of physical and distributed data storage.

To ensure complete coverage of the advances in this field, the Data Storage Track of the SAC Symposium solicits original contributions in, but not limited to, the following topical areas:

- Novel signal processing methods for emerging hard disk drive technologies such as TDMR, bit-patterned media recording etc.
- Channel characterization for flash memories and other emerging technologies such as RRAMs, memristors, phase change memories etc.
- Error correction and modulation codes for data storage channels
- Information theoretic aspects for data storage channels
- Innovative channels engineering aspects of optical storage systems
- Architecture and circuit design aspects for data storage
- Coding techniques for distributed storage networks
- Security and data compression for cloud storage and storage devices
- Energy-efficient designs for distributed storage
- Architecture and design of large-scale storage subsystems based on emerging non-volatile memories
- Storage area networks, optical interconnect, fiber channels
- Distributed data center architectures
- Cloud-based storage networks

Submission Guidelines

The IEEE ICC 2019 website provides full instructions on how to submit papers and the paper format.

You will select the desired symposium/track when submitting papers.

The paper submission deadline is October 14, 2018.

Only PDF files will be accepted for the review process and all submissions must be done through EDAS at <http://edas.info/>