IEEE Journal on Selected Areas in Information Theory

Special Issue on
Beyond Errors and Erasures: Coding for Data Management and Delivery in Networks

The focus of this special issue is on the applications of coding to the broad area of networking for efficient exploitation and delivery of data. Various coding techniques have been devised to tackle erasures and achieve fundamental limits of compression to recover a message with a fidelity criterion. Motivated by the research in this direction and a wide variety of applications at the intersection of distributed systems and networking, this special issue will focus on key aspects ranging from employment of coding for enhancing the efficiency of networking, protocols, computation and delivery in distributed systems, to maintaining consistency in updates and improving accessibility in distributed storage systems, as well as providing desired performance tradeoffs in terms of efficiency, delay and atomicity.

Topics: Authors are encouraged to submit their work on the topics including, but not limited to:

Networking coding for delay and robustness
Coding in protocols
Multipath and multihop coding, recoding
Coding for streaming
Intersection of coding and queueing, queuing analysis of coded delivery
Distributed coding for content access, in caches and the edge
Coding for distributed and parallel systems
Coding for efficient updates

Important Dates:

Manuscript Due: May 1, 2021
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Expected Publication: Dec. 2021.

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Submission Guidelines: A summary of key guidelines for submission has been provided by the IEEE Journal on Special Areas in Information Theory. Prospective authors are encouraged to refer to the Author Information in the special issue webpage.