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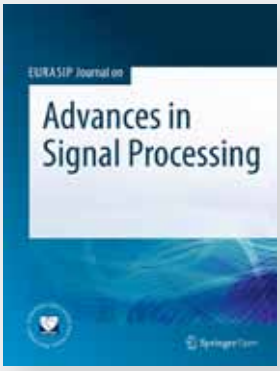
EURASIP Journal on Advances in Signal Processing

Special Issue on Network Coding

Future networks are expected to move from traditional routing schemes to network coding based schemes, which have created a lot of interest both in academia and industry in the recent years. Under the network coding paradigm, symbols are transported through the network by combining several information streams originating from the same or different sources. This type of communication has proved to be more robust to packet losses, be resilient to network changes such as dynamic topologies, and improve the overall throughput. Network coding principles can be used at different layers of the networks and the same fundamental principles can also be applied to distributed storage systems.



Contributions are invited on topics related to coding, detection and signal processing applied to communications in wireless and wired networks, including mobile and satellite communications, storage systems, as well as standards for next generation networks. Papers describing applications and testbeds validating the network coding principles are also welcome.

Potential topics include, but are not limited to:

- Processing of network coded signals
- Recent efficient encoding and decoding schemes
- Network coding for distributed storage
- Caching in networks and index coding
- Security and secrecy in network coding
- Rateless coding in networks
- Physical layer network coding (PNC)
- Lattice-based techniques for PNC
- Compute-and-forward protocols
- Multihop and two-way relay channels

Call for Papers

- Full-duplex radio with network coding
- Interference suppression with PNC and MIMO
- Large-scale networks with network coding
- Performance, delay, and throughput analysis of network coding
- Network coding for cooperative systems
- Integration of network coding into 4G/5G technologies
- Practical decoding techniques for network coding
- Applications to machine to machine communications
- Cross layer design and optimization
- Video streaming, multimedia multicast and broadcast
- Distributed signal processing with network coding

Submission schedule

Manuscripts due:
May 31, 2015

Submission Instructions

Before submission, authors should carefully read over the Instructions for Authors, which are located at asp.eurasipjournals.com/authors/instructions. Prospective authors should submit an electronic copy of their complete manuscript through the SpringerOpen submission system at asp.eurasipjournals.com/manuscript according to the submission schedule. They should choose the correct Special Issue in the "sections" box upon submitting. In addition, they should specify the manuscript as a submission to the "Special Issue on Network Coding" in the cover letter. All submissions will undergo initial screening by the guest editors for fit to the theme of the Special Issue and prospects for successfully negotiating the review process.

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