CALL FOR PAPERS

CHINACOM 2008

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Information and Coding Theory Symposium

Symposium Co-Chairs

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Brief Description

The community of information and coding theory has witnessed several revolutions in the past decade. First, codes constructed based on graphical presentations and decoded iteratively have achieved the capacities of various channels. Second, information and coding theory for multi-terminal and networked systems has rose as new exciting directions that may potentially shape the future of communications over wireless media and Internet. Third, the application of modern coding ideas have emerged from the channel-coding regime to source-coding and multi-terminal and networked systems as well as to security and other application areas from signal processing to pattern recognition. Finally, new fundamental insights have been continuously developed for various classical communication and compression problems as well as new settings arising in the modern world. The ChinaCom2008 Information and Coding Theory Symposium aims to provide a forum for researchers in information and coding theory to discuss novel results, rising challenges and new applications centered on these modern paradigms.

Topics of interest include, but are not limited to:

- Coding for noisy channels and erasure channels
- Source coding and data compression
- Joint source-channel coding
- Multi-terminal and network information theory
- Network coding and coding for multi-terminal systems
- Cooperation, competition and cognition in wireless networks
- Information theory in coding with feedback or side information
- Codes on graphs and lattice codes
- Belief propagation, survey propagation and related iterative algorithms
- Application of information and coding theory to signal, image and video processing
- Application of information and coding theory to compressive sensing
- Cryptography and information-theoretic and coding-theoretic approaches to data security