The paradigm of cooperative communications has recently attracted significant attention as a revolutionary technique for wireless networks, which is capable of yielding significant cooperative diversity gains. However, most proposed strategies in the literature reap the benefits of cooperative communications without considering the underlying information source that produces the communicated data. Although Shannon's classical separation theorem justifies independent source and channel coding for single-user channels under practically unrealistic hypotheses, it does not hold for multi-user channels typical of cooperative networks. As a result, this calls for novel cooperative source-channel communications techniques that take the source coding aspect into account.

In cooperative source and channel communications, cooperative communication techniques are used in conjunction with jointly optimized source compression and channel coding strategies in an effort to provide robust wireless multimedia communications. However, considerable challenges exist in establishing both theory and practice of cooperative source and channel communications for future generation wireless networks. In this special issue, we solicit papers presenting original and unpublished work on the topics related to this subject. Potential topics include, but are not limited to:

- Theory on cooperative source-channel coding for wireless networks
- Cross-layer design for wireless networks with source consideration
- Advanced media transmission over wireless relay networks
- Rateless coding and/or network coding for image or video streaming over wireless networks
- Distributed source-channel coding for wireless sensor networks
- Multiple sources cooperative communications
- Joint speech and channel coding
Submission Schedule

- **Manuscript Due:**  March 1, 2012
- **First Round of Reviews:**  June 1, 2012
- **Publication Date:**  September 1, 2012

**Submission Instructions:**

Before submission authors should carefully read over the Instructions for Authors, which are located at jwcn.eurasipjournals.com/authors/instructions. Prospective authors should submit an electronic copy of their complete manuscript through the SpringerOpen submission system at jwcn.eurasipjournals.com/manuscript according to the submission schedule. They should specify the manuscript as a submission to the “Special Issue on Cooperative Source and Channel Communications for Wireless Networks” 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.

**Lead Guest Editor**

Lei Cao, Department of Electrical, University of Mississippi, Oxford, MS

**Guest Editors**

Wei Xiang, Faculty of Engineering and Surveying, University of Southern Queensland, Toowoomba, QLD 4350, Australia

Ce Zhu, School of Electrical & Electronic Engineering, Nanyang Technological University, Singapore

Feng Wu, Microsoft Research Asia, Beijing, China

Anil Fernando, Faculty of Electronics and Physical Sciences, University of Surrey, UK