

Information Theory Society Student Committee Report by Andrea Goldsmith

*IT Society BOG Meeting
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Seattle, WA*

Committee Chair: Andrea Goldsmith
Student Co-Chairs: Ivana Maric and Brooke Shrader
Volunteer Coordinator: Lalitha Sankar
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The student committee of the Information Theory society was formed last summer with the goal of making the society of more value to students. The committee is chaired by Andrea Goldsmith and mostly student-run with active volunteers for coordinating volunteers, event planning, website development, and outreach. There is a small advisory committee of regular society members as well.

The committee created both a website (<http://itsoc-students.ece.cornell.edu/>) and a mailing list (itsoc-students-l@lists.cornell.edu). Anyone (whether an IT student member or not) can join the committee by signing up for the committee mailing list. The website has a focus on providing resources to students, including job posting; guidelines for getting started and being successful in research; pointers to information theory books, tutorials, and lecture notes/slides; links to research groups working in information theory and local IEEE information theory chapters; how-to guides on topics like getting started on information theory research, writing journal papers, and job hunting; job listings and resume postings; dissertation postings; a list of upcoming conferences with information theory sessions; and a list of upcoming committee meetings and related events. So far it has received almost 1000 hits. The website has the potential to be a very good resource for students, but we would like to determine ways to improve it, to make it more interaction, and to post more material on the web. We are currently in discussion with Nick Laneman to move the student website to the same site as the main IT website, and to take advantage of the innovations Nick is doing for the IT website to make the website easier to post to and to facilitate things like online discussions. The mailing list has also been somewhat successful, with students participating from all over the world including North America, Europe, India, and Iran. The list has not been as active as we would like it to be, and we are currently brainstorming on why that is the case

The student committee hosted 2 meetings in 2005 (at ISIT and Allerton), and has hosted 2 meetings in 2006 (CISS and ISIT) with another one planned this year at Allerton. The goal is to have 3 meetings per year, at CISS, ISIT, and Allerton, where there is typically a large student attendance. The student meetings consist of a short update on the student committee activities followed by a panel directed at students, which is taped and posted

on the student website. Lunch is also served. The CISS panel, entitled “Academia versus Research Labs: Tales from the Front Lines” featured panelists Vincent Poor, Christopher Rose, Stefano Galli, and Emina Soljanin. The student meeting at ISIT is Thursday at lunch, with a panel on “How to Choose, Formulate and Solve an Information Theory Problem” with panelists Rob Calderbank, Tom Cover, Michelle Effros, Tony Ephremides, Ralf Koetter, and Alon Orlitsky. In addition to the student committee meeting, we are hosting a new event at ISIT on Monday. It is a round table research lunch focused around the following topics: MIMO Broadcast Capacity and Space-Time Coding; Capacity with Feedback; Cooperation and Relaying; Network Coding; and Secrecy System Capacity. There will be a table set up for each topic, and students can chose the table they want to join. Each table has 1-2 students acting as discussion leaders, and key papers in each topic were posted on the web in advance.

There is one other new initiative that our committee is proposing: a student paper award at ISIT, which was suggested by the BOG executive committee in Uruguay. The idea would be to add a box to the ISIT review forms to identify outstanding papers (and perhaps some other method as well based on the paper reviews). This information would be forwarded to an awards committee that would review the selected papers with a student as a (first) author and select the best paper. As with any paper award, the process by which the best paper is selected needs to be further detailed. Therefore, our recommendation is to form an ISIT student paper award committee to put the awards process in place in time for ISIT 2007.

The committee activities are progressing well and as they become more established, we expect more widespread participation. The main challenge in doing this, as with all worthwhile activities, is the many other demands placed on the volunteers coordinating these efforts.