



**THE CHINESE UNIVERSITY OF HONG KONG**  
Department of Information Engineering

*Seminar*

**Distributed signal processing in networks using gossip**

by

**Dr. Anand Sarwate**  
**Postdoctoral Researcher**  
**Information Theory and Applications Center**  
**University of California, San Diego**

**Date : 20 March, 2009 (Fri.)**  
**Time : 11:00am – 12:00noon**  
**Venue : Room 833, Ho Sin Hang Engineering Building**  
**The Chinese University of Hong Kong**

*Abstract*

Gossip algorithms are a class of decentralized solutions to the problem of achieving consensus in a network of agents. They have attracted recent research interest because they are simple and robust - attractive qualities for wireless ad-hoc and sensor networks. The standard gossip protocol converges very slowly for topologies in popular models for these networks. This performance can be greatly improved by leveraging different properties of the network. In this talk I will discuss some recent examples and some new analytical tools for bounding the performance of gossip protocols.

Joint work with Alex G. Dimakis, Tuncer Can Aysal, Mehmet Ercan Yildiz, Martin Wainwright, and Anna Scaglione.

*Biography*

Anand Sarwate is currently a Postdoctoral researcher at the Information Theory and Applications Center at the University of California, San Diego. He earned BS degrees in Electrical Engineering and Mathematics from MIT in 2002 and MS and PhD degrees in Electrical Engineering from the University of California, Berkeley in 2005 and 2008, where he was under the supervision of Professor Michael Gastpar. Dr. Sarwate received the Samuel Silver Memorial Scholarship Award and Demetri Angelakos Memorial Achievement Award from the EECS Department at UC Berkeley. His research interests include information theory, distributed signal processing, machine learning, communications, and randomized algorithms for communications and signal processing in sensor networks.

**\*\* ALL ARE WELCOME \*\***

Host: Professor Sidharth Jaggi (Tel: 3163-4326, Email: sjaggi@ie.cuhk.edu.hk)  
Enquiries: Information Engineering Dept., CUHK (Tel.: 2609-8385)