



# Some Discussion Points

Doctoral Dissertation Colloquium  
CTS 2012, May 22, 2012

Todd Davies (Session Co-Chair)  
Symbolic Systems Program  
Stanford University

*On “Queen Bee Generation Method In Hive  
and Its Application in Sensor Networks”,  
by Kalyan Mahata*

- Might other considerations besides relative energy help determine choice of gateway node?
  - Propagation delay to base
  - Centrality of node in the sensor network
- What is the exact algorithm for finding the highest energy node?
  - Looks like dyadic comparison, iterated until stable
  - Is the algorithm optimal in any sense?

*On “Detection of Primary User Emulation Attacks in Cognitive Radio Networks”,  
by Meena Thanu*

- As noted in paper, technical under discussion is created by policy choices by the FCC – “legacy of primary users”
  - Are these choices technically justified?
- Have Primary User Emulation Attacks been happening and what are current approaches?
- If secondary spectrum users employ the author’s approach, what do they do when they detect a PUEA

*On “GitOD: An On Demand Distributed File System Approach to Version Control”,  
by Jonatan Schroeder*

- Given that Git stores commits through files, rather than diffs, how does the author’s approach compare with
  - Discarding old files from a local repository
  - Pulling and storing diffs instead of full files?
- Could GitOD lead to a free rider problem –
  - everyone depending on others to keep more files than they do?
  - How is availability of files guaranteed? “main authoritative server” is not very Git-like
  - How are files found if not in a central location?