

## Workshop III: Beyond Internet MRA: Networks of Networks

### Monday November 3, 2008

- 8:00–12:00 *David Alderson, Chair*
- 8:00–8:45 *Check-In/Light Breakfast (Hosted by IPAM)*
- 8:45–9:00 *Welcome and Opening Remarks*
- 9:00–9:45 **Mung Chiang** (Princeton University)  
*Content-Pipe Divide*
- 9:45–10:00 *Break*
- 10:00–10:45 **Michael Mitzenmacher** (Harvard University)  
*Towards Validation and Control of Network Models*
- 10:45–11:15 *Break*
- 11:15–12:00 **Balaji Prabhakar** (Stanford University)  
*Data Center Transport Mechanisms: IEEE Standards and Congestion Control Theory*
- 12:00–1:30 *Lunch (on your own)*
- 1:30–2:15 **John Heidemann** (University of Southern California (USC))  
*Examining the Internet Address Space through Census and Survey*
- 2:15–2:30 *Break*
- 2:30–3:15 **Tim Roughgarden** (Stanford University)  
*Worst-Case Efficiency Analyses of Queueing Disciplines*
- 4:00–4:30 *Break at Haines Hall, before Public Lecture*
- 4:30–5:30 **David Clark** (Massachusetts Institute of Technology)  
*Public Lecture: The Internets We Did Not Build – Haines Hall, Room 39*
- 5:30–7:00 *Reception (Location: IPAM Lobby)*

### Tuesday November 4, 2008

- 8:00–12:00 *David Alderson, Chair*
- 8:15–9:00 *Continental Breakfast*
- 9:00–9:45 **Vijay Gill** (Google)  
*Large Scale Challenges in Cluster Computing and Data Transport*
- 9:45–10:00 *Break*

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- 10:00–10:45 **John C.S. Lui** (Chinese University of Hong Kong)  
*Mathematical Modeling of Incentive Policies in P2P Systems*
- 10:45–11:15 *Break*
- 11:15–12:00 **Ramesh Johari** (Stanford University)  
*The Role of Prices in Peer-Assisted Content Distribution*
- 12:00–1:30 *Lunch (on your own)*
- 1:30–2:15 **David Alderson** (Naval Postgraduate School)  
*Optimization-Based Methods for Internet Topology Modeling and Vulnerability Analysis*
- 2:15–3:00 **Emily Craparo** (Massachusetts Institute of Technology)  
*Cooperative Sensing in Mobile Backbone Networks*
- 3:00–3:30 *Break*
- 3:30–4:15 **Kevin Wood** (Naval Postgraduate School)  
*Decomposition Methods for Designing Systems that are Robust against Attack*
- 4:15–5:00 **Bill Woodcock** (Packet Clearing House)

### Wednesday November 5, 2008

- 8:00–12:00 *"Architecture Day 1" John Doyle and John Wroclawski, Co-chairs*
- 8:15–9:00 *Continental Breakfast*
- 9:00–10:00 **Mark Gaynor** (Boston University)  
*Real Option Framework to Value Network Architecture and Network Neutrality*
- 10:00–10:30 *Panel Discussion*
- 10:30–11:30 **David Clark** (Massachusetts Institute of Technology)
- 11:30–12:00 *Panel Discussion*
- 12:00–1:30 *Lunch (on your own)*
- 1:30–2:30 **Kevin Fall** (Intel Research)  
*Design Decisions for a new Internet Spanning Layer*
- 2:30–3:30 **Geoff Xie** (Naval Postgraduate School)  
*Routing Glue Logic: What Does It Have To Do With The Internet Architecture?*
- 3:30–4:00 *Discussant: <b>Steven Low (Caltech)*
- 4:00–5:00 *Panel Discussion*

## Thursday November 6, 2008

- 8:00–12:00 *"Architecture Day 2" John Doyle and John Wroclawski, Co-chairs*
- 8:15–9:00 *Continental Breakfast*
- 9:00–10:00 **Mary Shaw** (Carnegie-Mellon University)  
*Software Architectures in Cyberspace*
- 10:00–10:30 *Panel Discussion*
- 10:30–11:30 **John Doyle** (California Institute of Technology)
- 11:30–12:00 *Panel Discussion*
- 12:00–1:30 *Lunch (on your own)*
- 1:30–2:30 **Guru Parulkar** (Stanford University)  
*Reinventing the Internet by Creating Platforms for Innovations*
- 2:30–3:30 **David Meyer** (University of Oregon)  
*It's The End Of The World As We Know It (aka The New Internet Architecture)*
- 3:30–4:00 *Discussant: <b>Petri Mahonen (RWTH Aachen)*
- 4:00–4:30 *Panel Discussion*
- 4:30–5:30 *Special activity unrelated to the Architecture day: Informal presentation of some MRA-related issues by Kevin Fall (Intel Research) and Nilanjan Banerjee (UMass), followed by discussions.*

## Friday November 7, 2008

- 8:00–12:00 *Ramesh Govindan, Chair*
- 8:15–9:00 *Continental Breakfast*
- 9:00–9:15 **Lixia Zhang** (University of California, Los Angeles (UCLA))  
*Scaling the Global Routing System: A Quick Overview of Ongoing Efforts*
- 9:15–10:00 **David Meyer** (University of Oregon)  
*The LISP Protocol: Theory, Practice, and Experience*
- 10:00–10:45 **Dan Jen** (University of California, Los Angeles (UCLA))  
*An Architecture for Practical Transit Core Separation*
- 10:45–11:15 *Break*

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- 11:15–12:00 **Ali Jadbabaie** (University of Pennsylvania)  
*Consensus, Synchronization and Coverage Verification in Networked Dynamic Systems*
- 12:00–1:30 *Lunch (on your own)*
- 1:30–2:15 **Fernando Paganini** (Universidad ORT Uruguay)  
*Distributed Auctions for Resource Allocation in Overlay Networks*
- 2:15–2:30 *Break*
- 2:30–3:15 **Krister Jacobsson** (California Institute of Technology)  
*Queue Dynamics with Window Flow Control*

