HOT INTERCONNECTS

Welcome to the 2012 20

20th Annual

Symposium on High-Performance Interconnects

The international forum where the high-performance computing and high-speed networking communities meet.

Held at Huawei North America Headquarters, Santa Clara, CA

August 22-24, 2012

IEEE

IEEE COMPUTER SOCIETY

Welcome to Hot Interconnects!

August 22-24, 2012

Santa Clara, CA

Generously hosted by

HUAWEI

Thanks to Huawei!

Deborah Stockes

Conference Coordinator

HUAWEI

Content:

- 4 keynotes
- 2 panels
  - *The network is moving into the sockets*
  - *SDN: Fad or phenom ?*
- 4 tutorials
  - OpenFlow, Data Center, HPC Ethernet and Infiniband, Clouds
- A rich technical program

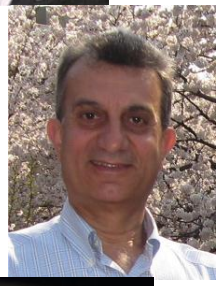
Keynotes

Future Of Network Technology - What is Old, is New Again (*9:00am, today)*

- John Roese, Huawei

Cray High Speed Networking (*2:30pm, today*)

- Bob Alverson, Cray



Power-Efficient, High-Bandwidth Optical Interconnects for High Performance Computing (9:00am, tomorrow)

- Fuad Doany, IBM TJ Watson

Software Defined Networks will tame complex networks (*3:00pm, tomorrow*)

- Nick McKeown, Stanford University

Evening Panel

“Network is Moving into the Sockets?”

(today 5pm)

Lloyd Dickman, Bay Storage Technology

Christian Bell, Myricom

Gilad Shainer, Mellanox

Moray McLaren, HP

Greg Thorson, SGI

Keith Underwood, Intel

Moderator: Fabrizio Petrini, IBM TJ Watson

Industrial Panel

"SDN- Fad or Phenom*?*"
(tomorrow, 4:00pm)

Dave Meyer, *Cisco*
Kireeti Kompella, *Juniper*
Jeff Mogul, *HP*
Vijoy Pandey, *IBM*
Dimitri Stiliadis, *Lucent*

Moderator: Matt Palmer, SDNCentral

Thanks to our Platinum Patrons

Special technical presentations
tomorrow at 4:00pm
today and 10:00am
tomorrow

Thanks to our Gold Patron

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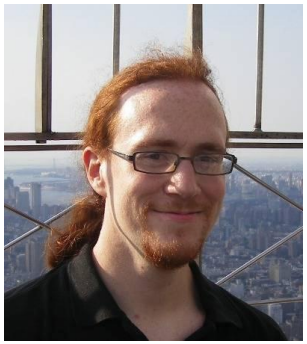
Conference Chairs

Patrick Geoffray

General Co-Chair

Torsten Hoefler

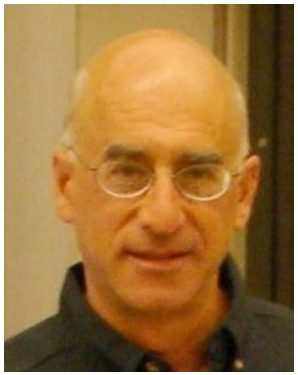
Program Chair



Hammid Ahmadi

General Co-Chair

Organizing Committee



Dan Pitt

– Finance Chair

John Lockwood

– Volunteers Chair

Luca Valcarenghi

– Publication Chair

Ramesh Durairaj

– Registration Chair

Panel and Tutorial Chairs

Ada Gavrilovska

- Industry Panel Co-Chair

Mitch Gusat

- Panel Co-Chair

Cyriel Minkenberg

- Tutorial Chair

Media Chairs

Bill Boas

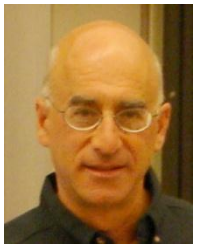
- Media Co-Chair

Raj Channa

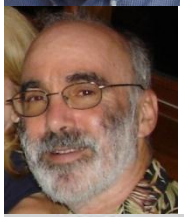
- Media Co-Chair

Steering Committee

John W. Lockwood



Dan Pitt



Allen J. Baum

Mark Laubach

Keren Bergman

Head Bubba

Raj Channa

Logistics

- WiFi:
  - User Name: ieee-conf
  - Password: w2huawei
- Power:
  - Charging station on right of main conference
- Food:
  - Left side of from lobby.
  - Breakfast, lunch, reception
- Restrooms:
  - Near the lobby
  - Backup nearby

Technical Program

2012 Paper Statistics

- 23 submissions
- 9 accepted
- 39% acceptance rate
- 3 invited talks
  - Rada Perlman: How to Compare Alternative Architectures
  - Ron Broghtwell: Portals 4: Enable Application/Architecture Co-Design for High-Performance Interconnects
  - Mike Watts: Electronic-Photonic Integration within Switches and Routers

2012 Paper Reviews

- 4-5 reviews for each paper
- 91 total reviews
- Average reviews per paper was 4
- PC conference call for final selection
  - Each paper was discussed
    - Some very intensely!
    - We rejected when in doubt

2012 Technical Sessions

1. Network Acceleration
   - Chair: Ada Gavrilovska
2. Traffic Generation and Scheduling
   - Chair: Christos Kolias
3. Performance Evaluation
   - Chair: Torsten Hoefler
4. Routing and Switching
   - Chair: Torsten Hoefler

2012 Program Committee

- Pavan Balaji, *Argonne National Laboratory*
- Christian Bell, *Myricom*
- Keren Bergman, *Columbia University*
- Gil Bloch, *Mellanox*
- Luca Carloni, *Columbia University*
- David Cohen, *EMC*
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- Hans Eberle, *Sun Microsystems*
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- Ada Gavrilovska, *Georgia Institute of Technology*
- Paolo Giaccone, *Politecnico di Torino*
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- Mitchell Gusat, *IBM Research*
- David Hay, *Hebrew University*
- Scott Hemmert, *Sandia National Laboratories*
- Ron Ho, *Sun Microsystems Laboratories*
- Mark Hummel, *AMD*
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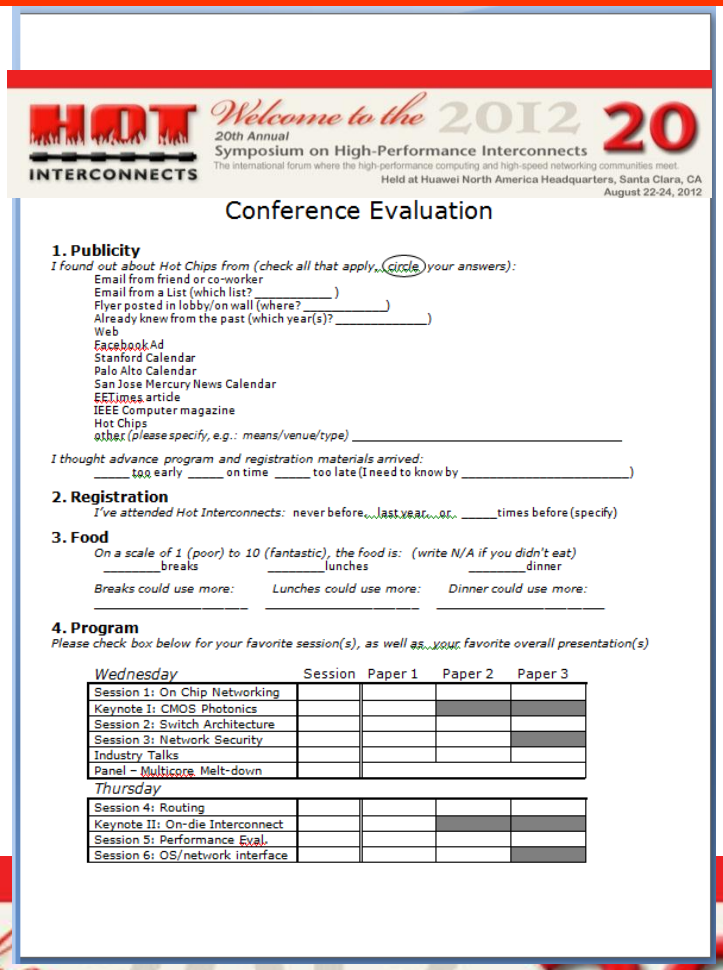
- John Lockwood, *Algo-Logic*
- Rami Melhem, *University of Pittsburgh*
- Cyriel Minkenberg, *IBM Research*
- Fabrizio Petrini, *IBM TJ Watson Research Center*
- Gregory Pfister, *Colorado State University*
- Duncan Roweth, *Cray*
- Craig Stunkel, *IBM T.J. Watson Research Center*
- Michael Taylor, *University of California*
- Vinod Tipparaju, *Oak Ridge National Laboratory*
- Brian Towles, *D. E. Shaw Research and Development*
- Keith Underwood, *Intel*
- Zuoguo (Joe) Wu, *Intel*

Tutorials on Friday, Aug 26

		Track 1		Track 2
AM	*T1.1*	**OpenFlow from a Developer's Perspective** *Srini Seetharaman, Deutsche Telekom*	*T2.1*	**Designing Scientific and Enterprise Computing Systems with InfiniBand and High-Speed Ethernet: Current Status and Trends** *D.K. Panda, Ohio State University*
PM	*T1.2*	**Interconnection Networks for Cloud Data Centers** *Sudipta Sengupta, Microsoft Research*	*T2.2*	**The Evolution of Network Architecture towards Cloud-Centric Applications** *Loukas Paraschis, Cisco*

We want your feedback

- Please complete the survey
- Your feedback on the conference is greatly appreciated



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Conference Evaluation

1. Publicity

I found out about Hot Chips from (check all that apply, circle your answers):

Email from friend or co-worker
Email from a List (which list? _____)
Flyer posted in lobby/on wall (where? _____)
Already knew from the past (which year(s)? _____)
Web
Facebook Ad
Stanford Calendar
Palo Alto Calendar
San Jose Mercury News Calendar
EETimes artide
IEEE Computer magazine
Hot Chips
other (*please specify, e.g.: means/venue/type*) _____

I thought advance program and registration materials arrived:
_____too early _____on time _____too late (I need to know by _____)

2. Registration

I've attended Hot Interconnects: never before, last year, or, _____times before (specify)

3. Food

On a scale of 1 (poor) to 10 (fantastic), the food is: (write N/A if you didn't eat)
_____breaks _____lunches _____dinner

Breaks could use more: _____ *Lunches could use more:* _____ *Dinner could use more:* _____

4. Program

Please check box below for your favorite session(s), as well as your favorite overall presentation(s)

Wednesday	Session	Paper 1	Paper 2	Paper 3
Session 1: On Chip Networking				
Keynote I: CMOS Photonics				
Session 2: Switch Architecture				
Session 3: Network Security				
Industry Talks				
Panel – Multicore Melt-down				
Thursday				
Session 4: Routing				
Keynote II: On-die Interconnect				
Session 5: Performance Eval.				
Session 6: OS/network interface				

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