

USENIX The Advanced Computing Systems Association
2014 VAIL Computer Elements Workshop
June 22-25, 2014

Theme: Possible Futures

Sunday June 22nd 5 PM Registration and Dinner. Keynote Presentation (8:00 PM – 9:15 PM)
Key Note Speaker: Robin Hanson (George Mason University) rhanson@gmu.edu

**Keynote: Prediction Markets
Giving the Truth Orientation of Engineers to Everyone Else**

Program Chair: Mark S. Miller (Google) erights@google.com
Program Co-Chair: Brian Hirano (Oracle) brian.hirano@oracle.com
Key Note Chair: Jim Hughes (Seagate) jphughes@mac.com

Monday June 23rd

Session 1: **Security**

9:00 AM – 12:00 noon

Securing Software Defined Networks
Skill (Caps-based Scripting)
Secure Coding

Chairs: Joe Politz (Brown Univ), Dean Sutherland (CERT)
joe.poltz@gmail.com, dfsuther@cs.cmu.edu
Arjun Guha (UMass Amherst) arjun@cs.umass.edu
Scott Moore (Harvard) sdmoore@fas.harvard.edu
Daniel Plakosh (CERT) dplakosh@cert.org

Session 2: **Concurrency in Prog. Languages**

1:00 PM – 3:30 PM

EM2 Scalable Multicore Architecture
Harnessing Hardware Parallelism with Erlang
Resilient & Petascale X10

Chairs: Brian Hirano (Oracle), Jan Medved (Cisco)
brian.hirano@oracle.com, jmedved@cisco.com
Mieszko Lis (MIT) mieszko@csail.mit.edu
Jim Larson (Google) jimlarson@google.com
David Cunningham (Google) sparkprime@gmail.com

Session 3: **Imaging and Signal Processing**

3:40 PM – 4:30 PM

Full-spec UHDTV-2 Video System

7:30 PM – 10:30 PM

Imaging Technologies
Highlights of the Imaging World
3D CMOS Image Sensors and System

Chairs: Hirofumu Sumi (TSMC), Makoto Ikeda (Univ. of Tokyo)
hsumi@tsmc.com, ikedam@silicon.u-tokyo.ac.jp
Hiroshi Shimamoto (NHK) shimamoto.h-iu@nhk.or.jp

Eric Fossum (Dartmouth College) Eric.R.Fossum@dartmouth.edu
Boyd Fowler (Google) boydfowler@google.com
Masayuki Shimura (Sony) Masayuki.Shimura@jp.sony.com
Hirofumu Sumi (TSMC), Makoto Ikeda (U. Tokyo)
All

Panel Discussion

Tuesday June 24th

Session 4: **Wireless and Networking**

9:00 AM – 12:00 noon

Wireless IP and Embedded MCUs
Network-Centric Programming Languages
Scaling High Performance Managed Clusters

Chairs: Ed Callaway (Sunrise Micro Devices), Don Banks (Cisco)
ed@sunrisemicro.com, donbanks@cisco.com
David Flynn (ARM) David.Flynn@arm.com
Jon Rossie (Cisco) jorossie@cisco.com
Landon Noll (Cisco) chongo@cisco.com

Planning Session: IEEE Vail 2015, 4PM – 5:30 PM All invited to participate.

Session 5: **Consumer Electronics**

8:00 PM – 10:30 PM

Surprise LCD Uses: 3D Vision & G-Sync
A Novel Power Play for Distributed LEDs
Energy Efficient Many-Core SoC

Chairs: Atsushi Hasegawa (Renesas), Yoshio Masubuchi (Toshiba)
atsushi.hasegawa.gx@renesas.com, yoshio.masubuchi@toshiba.co.jp
Gerrit Slavenburg (NVIDIA) gslavenburg@nvidia.com
Tsutomu Shimomura (Neofocal Systems) tsutomu@neofocal.com
Hiroyuki Usui (Toshiba) hiroyuki1.usui@toshiba.co.jp

Wednesday June 25th

Session 6: **Processors**

9:00 AM – 12:00 noon

Heterogeneous Computing and its Low Power Considerations

Xbox One: Next Gen Game Processor

Freescale's Advanced IO Processor

Chairs: Yahya Sotoudeh (Intel), Pete Wilson (Freescale)
yahya.sotoudeh@intel.com, pete@kivadesigngroup.com
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Sebastien Nussbaum (AMD) sebastien.nussbaum@amd.com
John Sell (Microsoft) jsell@microsoft.com
Brian Kahne (Freescale) bkahne@freescale.com

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