

IEEE Computer Society
2010 VAIL Computer Elements Workshop
June 27-30, 2010

New Horizons

Program Chair: Sam Naffziger, AMD, Samuel.naffziger@amd.com
Program Co-Chair: Bill Huffman, Tensilica, huffman@tensilica.com

Sunday June 27 5 PM Registration, Dinner and Keynote Presentation (**8:00 PM – 9:15 PM**)

"Intersection of Culture & Technology – Starting a High Tech Company"

Chair: Steve Miller, NetApp, scm@netapp.com Speaker: **Dave Hitz**, NetApp, dave.hitz@netapp.com

Monday June 28

Session 1: Software

8:30 AM – 12:00 noon

1.1 Certified Software

1.2 High Performance Secure Virtualization

1.3 Multi-core Code Parallelization

1.4 Compiler Mapping to Multi-GPUs

1.5 Alias: Many-Core Fabric- CE & Embedded

Chairs Rich Lethin, Reservoir, & David Baker, Green Hills Software

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Zhong Shao, Yale University, shao-zhong@cs.yale.edu

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Faraydon Karim, No Boundary Comp, faraydon.karim@noboundarycomputing.com

Nicolas Vasilache, Reservoir, vasilache@reservoir.com

Ben Cutler, Microsoft, ben@aliasdsp.com

Session 2: Semiconductor Trends

1:00 PM – 4:30 PM

2.1 Foundry Trends

2.2 Superconducting Computing Electronics

2.3 Phase Change Memory Overview

2.4 Ultra Low Power Processing Options

Chairs Yahya Sotoudeh, Intel, & Carl Anderson, IBM

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Andy Wei, Global Foundries, andy.wei@globalfoundries.com

Robert Wisnieff, IBM, wisnieff@us.ibm.com

Roger Cheek, IBM, cheekrw@us.ibm.com

George Bourianoff, Intel, geroge.i.bourianoff@intel.com

Session 3: Memory & Storage

8:00 PM – 10:15 PM

3.1 Storage Class MEM-Tech & Sys Overview

3.2 New MEM Storage Architectural Directions

3.3 DRAM/Flash MEM Limits – 5 Year Outlook

Chairs Jay Fleischman, AMD, & Jim Hughes, Huawei

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Raju Bopardikar, HP, raju.c.bopardikar@hp.com

Gary Bronner, Rambus, gbronner@rambus.com

Tuesday June 29

Session 4: Consumer Electronics

8:30 AM – 12:00 noon

4.1 Context-Aware Improved User Experience

4.2 Dust-Size Batteryless Sensor Node

4.3 Spin-RAM Development

4.4 Image Recognition Driver Assistance

Chairs Atsushi Hasegawa, Renesas & Hirofumi Sumi, Sony

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Masato Eda, NEC, eda@bp.jp.nec.com

Mitsuru Harada, NTT, haradam@aeci.ntt.co.jp

TBD, AIST, TBD

TBD, Renesas, TBD

Planning Session: IEEE Vail 2011, 4PM – 5:30 PM All invited to participate.

Session 5: Data Centers

8:00 PM – 10:15 PM

5.1 Network Oriented Services

5.2 Cloud Computing

5.3 Large Data Center Thermal/Electrical

Chairs Sebastien Nussbaum, AMD & Herb Schorr, Univ. S. CA

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Steve Hunter, IBM, hunters@us.ibm.com

Stan Freck, stan.freck@microsoft.com; Hasan Alkhatib, hasanal@microsoft.com

Amir Michael, Facebook, amir@facebook.com

Wednesday June 30

Session 6: Biomedical & Human Interfaces

8:00 AM – 12:00 noon

6.1 Bio-Medical Product Development

6.2 Healthy/Unhealthy Biological Systems

6.3 3D Displays

6.4 Medical/Business Issues

Chairs Ray Barrett, American R & D, & Steve Wald, Acuitus Tech,

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