AMW42

The 42nd Asilomar Microcomputer Workshop

May 4-6, 2016

Motto: "Can We Really Be The Answer?"

Wednesday, May 4

1:30pm **Opening Remarks** – Marianne Mueller, *Asilomar Microcomputer Workshop,* General Chair
John Wharton, *Applications Research,* Program Chair

1:50pm **Updates from Far, Far Afield** – John Wharton, *Applications Research,* Chair

- Captain's Log: A Report from the *Tennessee Valley Interstellar Workshop*
Robert G. Kennedy III, *TVIW* †
- Technoarcheology Update
Dennis Ray Wingo, *Skycorp*
- Meanwhile, Back On the Farm...
William Cheswick, *Gentleman Farmer*

3:00pm **Break**

3:30pm **Revisiting Alternative Energy** – Bob Cousins, *Cousins Consulting*, Chair

- The Future of Algae Farming: Replacing Fossil Fuels
Aaron Wolfe Baum, *GreenSpring LLC*
- Carbon Nano-Tube Solar Cells
Laurence H. Cooke, *NovaSolix, Inc*.
- Writing Geothermal Law for the Great Rift Valley: The Issues Are Deeper Than You Think
Robert G. Kennedy III, *Tetra Tech*

5:00pm **Welcome Reception and Dinner**

7:30pm **Athematic Short Talks** – Marianne Mueller, *Asilomar Microcomputer Workshop*, Timekeeper

- A Flash in the Valley, and Other Industry Milestones
Brian A. Berg, *Berg Software Design*
- The Benefits of Flexible Storage Controllers
Richard Fetik, *Data Confidential*
- Emulation as a Preservation Strategy
David S.H. Rosenthal, *LOCKSS Program*
- Comparative Skeletal Anatomy: Bones Are Cool!
Kirsten Malmquist, *Safari West Wildlife Preserve*

- A Thousand People Driven by Code at 200 MPH
D J Capelis, *Capelis Discarnate*
- The Tracery Programming Language (or: How I Found Out What I'd Actually Created)
Kate Compton, *UC Santa Cruz*
- Frugal Engineering: A Hand Cranked Defibrillator
Sreeram Dhurjaty, *Dhurjaty Electronics Consulting LLC*
- Open Source Legalese: Software is Eating Law
Virgil Griffith, *Backbone Telecommunications*

10:30pm **Late Night Snacks**

Thursday, May 5

8:30am   **The Future of Eponymous Microprocessors: RISC, VISC, or NISC?** – Ken Shoemaker, *Intel Corporation*, Chair

- New Frontiers in Computing
  Ken Shoemaker, *Intel Corporation*
- RISC-V: Instruction Sets Want to be Free
  Krste Asanović, *UC Berkeley*
- VISC™: A New CPU Architecture
  Mohammad Abdallah, *Soft Machines, Inc*.
- Neural Net Accelerators for Machine Learning Workflows
  Jeremy Bruestle, 10^{26} *Labs, Inc*.

10:00am   **Break**

10:30am   **Deep Understanding: The Search for Intelligent Life in Cyberspace** – Brian A. Berg, *Berg Software Design*, Chair

- Applying Machine Learning to Web Discrimination Problems
  Chuck McManis, *IBM Corporation*
- Building Search for the Wayback Machine
  Greg Lindahl, *Internet Archive*
- Exposing and Searching the Dark Web
  Virgil Griffith, *Backbone Telecommunications*

12:00n   **Lunch**

1:30pm   **Looking at Crowds from Both Sides Now** – Dewayne Hendricks, *Tetherless Access*, Chair

- Circuit Stickers: From Research Project to Research Product
  Jie Qi, *MIT Media Lab*
- My Crowdfunding Experiences
  David S.H. Rosenthal, *LOCKSS Program*
- Kickstarting Transporter
  Geoff Barrall, *Imation*
- Crowdfunding Experiences II
  Dewayne Hendricks, *Tetherless Access*

3:00pm   **Break**

3:30pm   **Mobile Robots and Autonomous Machines** – John Wharton, *Applications Research*, Chair

- An Autonomous Coffee Run with a Mobile Robot
  Tony Pratkanis, *Stanford University*
- How to Train Your Robot
  Choong Ng, 10^{26} *Labs, Inc*.
- After Moore: Autonomous Machines and The Next Big Thing
  Dave Wyland, *The Wyland Group*

5:00pm   **Reception and Dinner**

7:30pm   **Open Discussion: A _Rich_ Asilomar Tradition** – Mary Eisenhart, *Mary Eisenhart Editorial Services*, RAT Patrol

Ten-minute presentations on any subject you choose. Contact Mary Eisenhart immediately upon registration to request a time slot, first-come, first-reserved. Slots get grabbed up fast! Warning: Some time-slot shrinkage may occur as the witching hour draws nigh.

Friday, May 6

5:30am **Pre-dawn autonomous dune buggy races** (Self-organizing; bring your own LIDAR filters)

8:30am **The Future of AMW: Is There Life After 43?** – Marianne Mueller, *Asilomar Microcomputer Workshop*, Discussion Leader

9:00am **Threat Vectors: Technology, Security, and Society** – Bill Cheswick, *Visiting Scholar, University of Pennsylvania*, Chair

- The IoT, Self-Driving Cars, and Other Extraordinary Threats to Humanity
   Paul Vixie, *Farsight Security, Inc*.
- Radical Leveling Technologies: What They Are, Why They Matter, and the
   Challenges to Come – Maj. Jennifer Snow, *USAF*

10:00am **Break**

10:30am **What's the Next Big Question?** – Bill Cheswick, *Wandering Scholar,* Panel Moderator

Panel discussion. Panel members to include:

- Allan Alcorn, *Hack the Future*
- Dave Hampton, *Dave Hampton Engineering*
- Marc Kaufman, *Adobe Systems, Inc.*
- Maj. Jennifer Snow, *USAF*

Additional panel members to be announced

11:45am **Closing Remarks. Marianne Mueller** – *Asilomar Microcomputer Workshop*, General Chair

12:00n **Outdoor Group Lunch** (weather permitting). Convene in the fire pit/picnic area

2:30pm **AMW42 Workshop Adjourns**

Program Committee

Brian A. Berg		Anne P. Mitchell
Bill Cheswick	John Feland	Marianne Mueller
Sandy Clark	Janet Guns	David S.H. Rosenthal
Fred Clegg	Dewayne Hendricks	Ken Shoemaker
Bob Cousins	Dan Kaminsky	Fred Terman
Mary Eisenhart	Bruce Koball	John Wharton

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† See < /tinyurl.com/AMW42-TVIW > for *Wired Magazine*'s article on RGKIII's TVIW

Congrats, Lee Felsenstein, for being named a Computer History Museum Fellow

$2016 = 2^5 \cdot 3^2 \cdot 7 = 0000011111100000_2$; $42 = 2 \cdot 3 \cdot 7 = 0101010_2 = 222_4$

$2016/42 = 48 = 2^4 \cdot 3 = 0000110000_2 = 00300_4 = 060_8 = 030_{16}$

Thanks, Tim Pozar, for producing Radio Free Asilomar

Join us for AMW43*, April 19-21, 2017*
Stay tuned to <www.amw.org>
& Thanks for Coming!