
AMW45

The Forty-Fifth Asilomar Microcomputer Workshop



April 24-26, 2019

Chiaroscuro Motto: "Via Silicon Dioxide Darkly"

Wednesday, April 24

entre'acte: Clair de Lune/Moonlight, NASA Goddard Space Flight Center

- 1:30pm** **Opening Bookend-Framing Device / Call for Volunteers & Gifts**—Robert G. Kennedy III PE (hereinafter just "RGK3"), *Ultimax Group*, General Chair
- 1:44pm** **Newcomers Raise Hands**
- 1:45pm** **Remembering Those We Have Lost Since AMW44**—Brian Berg, *Berg Software Design*, Lead
In memoriam: Ted Laliotis, John Wharton (from brother Bob Wharton), Bernard Peuto (from Bennett Smith), David Warman (from widow Ann Warman), and Bill Godbout
- 2:15pm** **"Through a Glass, Darkly"**—Mark Cummings, *Orchestral Networks*, Lead
- My Computer Likes Me, and Other Parables of the Future—Dennis Allison, *Stanford EE380*
 - "Outlandish" Technological Threats to Civil Liberties: How We Did—RGK3, *Ultimax Group*
 - How the Digital Domain Can Save the World's Languages
Laura Welcher, *Long Now Foundation*
- 3:45pm** **Pre-Athematic Short Talks**—Ken Shoemaker, *Intel Corp.* Timekeeper-gavelmeister
- Apollo 11's Laser Experiment & DIALOG Search System—Brian Berg, *Berg Software Design*
 - Webcams in Space: The Next Generation—Rick Voreck, *SSL/Maxar*
- 4:15pm** **Break / Room Check-in**
- 5:30pm** **Dinner**
- 6:30pm** **Evening Reception Opens** (next door in the Toyon Room, with a real fire in the fireplace)
- 7:00pm** **Domain-Specific Architectures for Deep Neural Networks**—David Patterson, *Google Brain*,
University of California Berkeley, introduction by Brian Berg, *Berg Software Design*
- 7:50pm** **Short Break/Reception/Meet & Greet with Dave**
- 8:15pm** **Meet the New Minds: 32 elevator speeches**—RGK3, *Ultimax Group*, Newbie Wrangler
- 8:40pm** **Athematic Short Talks**—Ken Shoemaker, *Intel Corp.* Timekeeper-Gavelmeister
- Geopolitics and the Future of Money: Crypto Concerns—Girish Nandakumar, *Donovan Group*
 - Blockchain: What's Not to Like?—David S.H. Rosenthal, *Stanford (retired)*
- 9:15pm** **Short Break**
- Perceptual Compression for Video Storage and Processing—Amrita Mazumdar, *Univ. of Wash.*
 - On Becoming a Person: An African Notion for Ethics and Equality in Machine Learning—
Sabelo Mhlambi, *Berkman Klein Center*
 - Tech: A Way to Revolutionize the African Youth—Carole Zigani, *Zidox & Désiré Banse*,
Prometheus Computing
 - The Life of a Dollar—Chuck McManis, *Spectranetix Inc.*
 - Self Sovereign Identity Technology—Kaliya Young, *Identity Woman*
 - Correcting Software Bugs, Automatically—Charlie Bedard, *OpenRefactory*
 - What I Learned by Watching Investors for Three Years—Andy Freeman, *find.xyz*

Thursday, April 25

- 8:00am Overflow Buffer for Athematic Tech Talks**–Ken Shoemaker, *Intel Corp.*, gavelmeister
- Update on Liquid Robotics Waveglider–James Gosling, *Amazon Web Services*
 - Moore’s Law Meets Amdahl’s Law–Clem Cole, *Intel Corp.*
 - Gen-Z: A Universal System Interconnect–Keith Packard, *Altus Metrum*, *HP Enterprise*
 - The Cadence/Tensilica DNG 100ML Inference Engine–Michael Shebanow, *Tensilica*
- 9:15am Break**
- 9:45am Eponymous (Rad-Hard) μ Processor Super Session**–Ray Ladbury, *NASA Goddard Space Flight Center*, Lead
- Bringing Single Event Effects Down to Earth
Ray Ladbury, *NASA Goddard Space Flight Center*
 - Nuking Things in the Berkeley Nuclear-Free Zone
Mike Johnson, *Lawrence Berkeley National Laboratory*
 - Living with Radiation or, How I Learned to Stop Worrying and Love the Bomb
Heather Marie Quinn, *Los Alamos National Laboratory*
 - When the “Meta Machine” Hears the Banshee Wail of the Universe
Robert Baumann, *Radiosity Solutions*
- Panel discussion and Q&A**–Ray Ladbury, *NASA Goddard Space Flight Center*, Moderator
- 12:00n Lunch**
- 1:30pm Cybersecurity Session “Oops! We Have to Make This Secure?”**–Pablo Breuer, *U.S. Special Operations Command*, Lead
- Approximate Query and the Too Large Behavioral Data Problem
Joel Holland, *SecurityOnDemand.com*
 - Misinformation on the Dark Net: A Good Guy’s Screed for Becoming a Troll without Shooting Yourself in the Foot
Tom Richards, *GroupSense*
 - Cell Sharking: Hunting Stingrays and Other Rogue Cell Towers
Karl Koscher, *University of Washington*
- 3:00pm Break**
- 3:30pm Leading Edge Communications Session: “From Here to There”**–Christine Cockey, *Mistral Mountain*
- Using Cellular to Connect the Connected Car (plus a demo)
Eamon Heskin, *Deutsche Telekom*
 - Vehicle-Mounted Basestations: From Ninjas to Vehicles
Yoshioki Chika, *Softbank*
 - A New SDR RF Frontend Based on Breaking Every Rule of Polar Amplifiers
Doug Kirkpatrick, *Eridan Communications*
- 5:00pm Reception and Dinner**
- 7:30pm Open Discussion: A Rich Asilomar Tradition**– Kathleen Tuite, RAT Patrollers
Ten-minute presentations on any subject you choose. Contact Kathleen immediately upon registration to request a time slot, first-come, first-reserved. All attendees welcome to sign up. Don’t dawdle; slots get grabbed up fast! Warning: Some time-slot shrinkage may occur as the witching hour draws nigh, meaning your turn may come sooner than you think.

Friday, April 26

- 5:30am Pre-dawn JHW Memorial Séance/Self-Organizing Braitenberg Vehicle Rally** (see what emerges)
- 8:00am Countering Power-Based Misinformation**—Sara-Jayne Terp, *Bodacea Light Industries*, Lead
- Influence Operations in a Post-Westphalian World—Pablo Breuer, *U.S. Spec. Ops Command*
 - Countering with Social Movements—Frank Heidt, *Leviathan Security*
- Panel discussion and Q&A**—Sara-Jayne Terp, *Bodacea Light Industries*, Moderator
with: Frank Heidt, Pablo Breuer, Wenona Benally, Désiré Banse, and Paul Vixie
- 9:30am Break**
- 10:00am Threat Model**—Lou Katz, *Oakland Privacy Advisory Commission*, Lead & Introduction
- Privacy is Dead...You May Be Next—Ellen Cousins, *Primos Research*
 - Transportation and Anonymity, Or the End of It—Brad Templeton, *robocars.com*
 - I Am Not a Number—Paul Vixie, *Farsight Security, Inc.*
- 11:30am Thanks/Kudos, Call for Vols & Gifts, What's Coming @ AMW46, Closing Bookend**—RGK3
- 12:00n Outdoor BBQ Lunch & Group Photo** (weather permitting, re-convene in fire pit area)
Structured Discussion: With Four Leading Questions to Develop Themes for Next Time—
RGK3, Facilitator
- 2:00pm AMW45 Workshop Adjourns**

AMW45 Organizing Committee

Core Committee

Brian Berg
Mark Cummings
Janet Guns
Dewayne Hendricks
Robert Kennedy
Bruce Koball
Marianne Mueller
Tim Pozar
Jie Qi
Ken Shoemaker
Kathleen Tuite

Peripheral Subcommittee

Bill Cheswick
Mary Eisenhart
Brain Trust
Bob Cousins
David S.H. Rosenthal
Jen Snow
Dennis Allison

Emeritus Subcommittee

Fred Clegg
Fred Terman

General Chairs of Yore

Ted Laliotis (RIP), 1975-1983	Mary Eisenhart, 2002-2005
Allan Schiffman, 1984	Anne Mitchell, 2006-2007
John Wharton (RIP), 1985-1997	Marianne Mueller, 2008-2016
Brian Berg, 1998-2000	Robert Kennedy, 2017-
Mark Laubach, 2001	

Program Chairs of Yore

Fred Coury and Fred Clegg, 1975-1983 Bob Wedig, 1998 John Wharton (RIP), 1999-2017

Wednesday is World DNA Day.** 65 years ago, Watson & Crick published their discovery of the double helix. A year after that, Bell Labs demoed the first solar cell. 8 years later, Robert Noyce got a patent for the IC. 62 years ago this **Thursday**, the first successful container ship, *SS Ideal X*, took to the sea, which changed the world as much as the IC has. 160 years ago, British & French engineers broke ground for the Suez Canal. **Friday** marks 37 years since Xerox PARC introduced its version of the computer mouse.

** Tuesday is Soylent Green Day.

Please join us here for AMW46: May 6–8, 2020. Stay tuned to www.amw.org
Suggestions for speakers, participants, or session topics for AMW46: chair@amw.org