

1st Hawaii Meeting

Far West Section of the American Physical Society

University of Hawai'i at Mānoa

January 19, 2019



Scientific Program

8:15 am ~ Check-in & Breakfast ~

MORNING SESSION (Watanabe Hall Room 112)

9:00 am *Welcome* by Pui Lam (University of Hawai'i at Mānoa)

Oli heahea (Hawaiian chant of welcome)
performed by Lelemia Irvine (University of Hawai'i at Mānoa)

9:10 am *Kilauea's Eruptive Fissures in 2018 – Unsteady as She Goes?*
Bruce Houghton (University of Hawai'i at Mānoa)

9:40 am *Ultrafast and Very Small: Discover Nanoscale Magnetism with
Picosecond Time Resolution Using X-Rays*
Hendrik Ohldag (Lawrence Berkeley National Laboratory)

10:10 am *Excursions in Nanophysics*
Klaus Sattler (University of Hawai'i at Mānoa)

10:40 am ~ Coffee & Tea Break ~

11:00 am *Re-envisioning STEM Education Through the Lens of Culture and Place*
Tara O'Neill (University of Hawai'i at Mānoa)

11:30 am *Don't Lecture Me: Tutorial-Based Curricula for Teaching
Advanced Placement Physics*
Michael Gearen (Punahou High School, retired)

11:45 am *Contributing towards Astrophysics and Physics Curriculum Enrichment
through LLNL's Teacher Research Academy*
Tessie Lumabao (Waipahu High School)

12:00 pm ~ Lunch ~

AFTERNOON SESSION (Watanabe Hall Room 112)

1:00 pm *Applications of Tungsten in Z-pinch Plasma Physics and Fusion*
Alla Safronova (University of Nevada, Reno)

1:30 pm *Recent Results from ANITA*
Peter Gorham (University of Hawai'i at Mānoa)

2:00 pm *The Belle II Experiment & High Energy Physics Research in Hawai'i*
Kurtis Nishimura (University of Hawai'i at Mānoa)

2:30 pm ~ Coffee & Tea Break ~

3:00 pm *From Quantum Devices to Synthetic Biology – Physics in the Corporate World*
Jim Hollenhorst (Agilent)

3:30 pm *Imaging Brain Function with MRI*
Andrew Stenger (UHM JABSOM)

4:00 pm *Waveform Digitizing System On Chip Readout Electronics for Particle
Astrophysics Experiments*
Benjamin Rotter (Nalu Scientific)

POSTER SESSION (Watanabe Hall Rooms 113 & 114) & RECEPTION (walkway)

4:30 pm Poster presentations are listed on the following page
– 6:00 pm

5:30 pm ~ Finger Food Reception ~
– 7:00 pm on walkway outside Watanabe

This meeting is sponsored by the American Physical Society's Far West Section and the Department of Physics and Astronomy with support from the School of Ocean and Earth Science and Technology at the University of Hawai'i at Mānoa.

POSTER PRESENTATIONS

- Wat 113 *Investigating r-process Absorption Signatures in Stellar Spectra in Search of r-II Stars*
Tino Wells (University of Hawai'i at Hilo)
- Matching Near-Earth Asteroids to Main Belt Family Euphrosyne*
Patrice Smith (University of Hawai'i at Hilo) and Maria Daniella Douglas (UH Mānoa)
- Discovery and Characterization of Distant Solar System Objects*
Kyle Steckler (University of Hawai'i at Hilo)
- Modeling Magnetic Morphologies of Star-Forming Regions*
Kenji Emerson (University of Hawai'i at Hilo)
- The Planet of Two Suns*
Laura Daclison (Waipahu High School)
- Studying Wolf-Rayet and Luminous Blue Variable Stars to Find Evolutionary
 Connections Though the Mauna Kea Scholars Program*
Jean Claude Dumaslan (Waipahu High School)
- Don't Lecture Me; Tutorial-Based Curricula for Teaching Advanced Placement Physics*
Michael Gearen (Punahou High School, retired)
- Self-Healing of Rhodamine 6G in Polymer Matrices*
Yunli Lu and Nicholas Christianson (Hawai'i Pacific University)
- Wat 114 *Search for Cosmic Ultra-High Energy Neutrinos with ANITA-IV*
John Russell (University of Hawai'i at Mānoa)
- NuLat: A Compact, Segmented, Mobile, Anti-neutrino Detector*
Ryan Dorrill (University of Hawai'i at Mānoa)
- Analytical Capabilities of the Advanced Electron Microscopy Center at University of
 Hawai'i, Mānoa*
Kenta Ohtaki (University of Hawai'i at Mānoa)
- Search for O^{-1} Earthquake-like Precursors: a Maximum Entropy- μ SR MgO study*
Carolus Boekema (San Jose State University)
- Beta-Decay Energy Spectrum Fitting with DarkSide-50 Calibration Data*
Victor Goicoechea (University of Hawai'i at Mānoa)
- LiLand - Lithium Electron Antineutrino Source at KamLAND*
Tatjana Miletic (Arcadia University and University of Hawai'i at Mānoa)
- Dynamic Temperature Monitor Installation*
Olexiy Dvornikov (University of Hawai'i at Mānoa)
- Particle Detectors and Anderson Localization:
 A "Guide" to Improving Particle Detection in Scintillators*
Kevin Keefe (University of Hawai'i at Mānoa)
- Hawaii WATCHMAN Electronics*
Jose Duron (University of Hawai'i at Mānoa)
- Atomic Clocks In Space and the $GM=tc^3$ Cosmology*
Louise Riofrio (International Lunar Observatory Association)