

KILOLANI



The Stargazer



Volume 4, Issue 8

'Aukake (August) 2009

Aloha mai!

Welcome to 'Imiloa's monthly membership e-newsletter, *Kilolani*. Please send your comments and feedback to our Membership and Development Office at membership@imiloahawaii.org or call (808) 969-9732.

'Imiloa Astronomy Center is open from 9:00 am to 4:00 pm, Tuesday through Sunday, and on these holidays: Memorial Day, King Kamehameha Day, Independence Day (Fourth of July) and Labor Day. We're closed on Thanksgiving, Christmas and New Year's Day.

Calendar of Events at a Glance

-- details provided below

2009: International Year of Astronomy (IYA)

Every Saturday: Keiki Kilohoku Korner activities from 9:30 am to 11:00 am
10:00 am Sesame Street's *One World, One Sky: Big Bird's*

*Adventure**

added a

**Due to the overwhelming popularity of this show, we've also
noon show every Saturday.*

August 5: *Science Rocks!* Wednesday after-school weekly program begins

August 8: Public opening of Sesame Street's *One World, One Sky: Big Bird's Adventure* keiki planetarium show plays at 10:00 am every Saturday

August 15: TMT Toothbrush Micro Robot Teacher Workshop

August 15: *Maunakea Directors' Lecture Series* with Keck's director, Dr. Taft Armandroff at 7:00 pm

September: Celebrate Museums Month - visit 10 of our Hawai'i Island museums for free!

September 4-5: "Lei Hoku, He Pili Aloha" live Japanese-Hawaiian concert in the planetarium

September 19: *Maunakea Directors' Lecture Series* with Subaru's Masahiko Hayashi at 7:00 pm

September 26: Smithsonian Museum Day - get a free admission coupon to 'Imiloa!

October 7: Pico Crickets: Art and Electronics Workshop

October 10: First TMT BrushBot Micro Robot Tournament

October 16-18: 3rd annual Hilo Wayfinding and Navigation Festival

October 17: *Maunakea Directors' Lecture Series* with Dr. Raymond Blundell of the Smithsonian Submillimeter Array at 7:00 pm

October 24: IYA Block Party in the UH Hilo Science and Technology Park

October 31: "Alien Encounters" in 'Imiloa's Halloween Spooky Hall

November 21: HELCO Big Island VEX Tournament

November 21: *Maunakea Directors' Lecture Series* with Dr. David James of the UHH Telescope at 7:00 pm

December 4: Member Mahalo Holiday Party!

December 19: *Maunakea Directors' Lecture Series* with Dr. Mike Bolte of the UC Observatories at 7:00 pm

Questions about any of the above events? Call our front desk at 969-9703.

Image of the Month

"One Small Step for Man, One Giant Leap for Mankind"



[Click here](#) for an explanation of our August Image of the Month!

Member Announcements

Show your membership pride!

Members at the premium levels of Silver (\$250) or Gold (\$500) are welcome to visit our front desk to receive a shiny, new identification card in metallic silver or platinum gold. Pick yours up today!

Sesame Street's *One World, One Sky* member appreciation event, a success!

A big mahalo to members who were able to come and share in our member appreciation event on Saturday, August 1. It was a great success! Between the delicious pupus and refreshments, the exciting guest appearance from Elmo, and the wonderful *One World, One Sky* planetarium show, it was a delightful evening and fun for the entire family.



Here's what our members had to say about the event:

- "What a great event. My daughter just loved it...during the planetarium show, she yelled, 'I LOVE THIS!'"
- "It was a wonderful event and my kids had a great time! Keep up the good work."
- "My grand-daughter...thoroughly enjoyed the performance. Thank you for providing the opportunity to view this performance and we'll be anticipating future performances."

Keep your ears and eyes open for upcoming events and activities. There is always something new and exciting at 'Imiloa!

Missed the preview? Come see the planetarium show every Saturday at 10 am and now also at 12!





Upcoming Events and Activities

***Science Rocks!* after-school program returns to 'Imiloa**

The learning continues, but the fun never stops! The *Science Rocks!* after-school program is back as of August 5, 2009 and will continue to run until May 19, 2010, for as long as school is in session. This education-based program is available to all students in grades 4-6 and is held every Wednesday from 2:30 pm to 5:15 pm.



- August 5: Zome Tool Geometric Explorations
- August 12: Big, Little & In-Between: Observations in Size and Scale
- August 19: Electricity I
- August 26: Electricity II

Each session is limited to 20 students and enrollment is necessary, costing \$15 per session. To access the enrollment form, please [click here](#). For more information, please call our School Programs Coordinator, Gail Loeffler, at 969-9729.

The Speakers at Noon series

Every Wednesday during the month of August, at 12:00 noon, 'Imiloa will be hosting a different speaker, located either in the classroom or in the Earl and Doris Bakken Moanahoku Hall. Speakers will be presenting a number of different topics, ranging from culture and history, to the environment.

The schedule of these **free** presentations includes the following:

- August 5: Inge Heyer - "Being the Solar System"
- August 12: Mahealani Lono - "The Hawaiian Star Compass"
- August 19: Guy Toyama - "NELHA's (Natural Energy Lab of Hawai'i) Past, Present, and Future"
- August 26: Ranger B.G. Horvat - "Volcanoes National Park: a World Heritage Site and Biosphere Reserve"

Join us at 12:00 noon every Wednesday during August for an interesting and educational presentation and lecture.

Student intern Pocket Theatre presentations

This summer, 'Imiloa is hosting numerous student interns, sponsored by a grant from ECHO, Education through Cultural and Historical Organizations. These interns will be presenting various topics through skits, lectures, and theatre.



The Hawaiian Star Compass

Tuesdays - Fridays at 11:45 am

The History of the 'Ukulele

Tuesdays - Fridays at 1:30 pm, Saturday at 12:00 pm

The History of Poli'ahu

Saturday and Sunday at 10:45 am

The Origins of Surfing and Moon Reading

Tuesdays - Thursdays at 2:30 pm

Water Finding: Ancient and Present

Tuesdays - Thursdays at 2:00 pm

TMT BrushBot Micro Robot Teacher Workshop

Sponsored by the Thirty Meter Telescope and 'Imiloa Astronomy Center, elementary, middle, and high school teachers of the Big Island are invited to attend a **free** BrushBot Robotics workshop. Facilitated by the award-winning Waiakea High School Robotics Club, this workshop will be held on Saturday, August 15. Two sessions will be held: Session I (9:00 am - 11:30 am) and Session II (12:30 pm - 3:00 pm).



Pre-registration is required. In order to register, please email Art Kimura of the Hawai'i Space Grant Consortium at art@higp.hawaii.edu with the following information: name, school, grade level or subject taught, session preference.

Every teacher must bring with them 1 AAA battery, a small pair of scissors, and a small box. At the workshop, you will receive 2 miniature pager vibrating motors, a toothbrush, an energy ball, and instructions on building your own brushbot.

Involvement in the workshop will allow teachers the opportunity to participate in the 1st Annual TMT BrushBot Micro Robot Tournament on October 10, 2009 - open to elementary, middle, and high school teams.

For further information, *click here* for the flyer. If you have additional questions, email Art Kimura at art@higp.hawaii.edu or phone at 934-7261.



"Celebrating Museums Month" - September

Join us and celebrate our Big Island museums! In the month of September, 'Imiloa members will receive free admission at any other participating Big Island museum. Conversely, people who are members of other Big Island museums can show their current museum membership cards at 'Imiloa throughout September to get free general admission.

Participating museums include the Pacific Tsunami Museum, Pana'ewa Rainforest Zoo and Garden, Onizuka Space Center, Volcano Art Center, Lyman Museum, Laupahoehoe Train Museum, Amy Greenwell Gardens, and Hawaii Gateway Energy Center.

For more information, email gchunhoo@imiloahawaii.org or call our front desk.

Admission is limited to primary and associated member on membership only, with a maximum of two people.

Disney's Keys of Excellence programs - September 15 and 16

'Imiloa Astronomy Center is proud to partner with the Shidler College of Business at the University of Hawai'i at Manoa to bring the *Disney Keys to Excellence* and *Disney Keys to Inspiring Creativity* programs, presented by the world-renowned Disney Institute, to Honolulu on September 15 and September 16, 2009.

Having trained leaders from more than 35 countries and over 40 industries, the Disney Institute is a leader of professional development programs in the areas of leadership excellence, brand loyalty, people management, quality service, and inspiring creativity. Utilizing the successful management principles and business philosophies of the Walt Disney Company, the Disney Institute provides a unique and compelling behind-the-scenes opportunity to "experience the business behind the magic."

Whether you choose to register for one or both of the programs, these one-day local workshops are a rare and affordable opportunity to learn best business practices from Disney insiders, and discover ways to easily and immediately adapt and apply those practices to pick up the pace in these slow economic times.

Double the magic by registering for both events and receive an additional \$35 off of each one-day program fee (\$70 total additional discount per guest).

Important: Please use the 'Imiloa Astronomy Center promotional code **IACPBW** to receive \$50 off per guest for each event (\$100 total discount per guest if registering for both events) when registering. Additional group and multi-day discounts are available. See website for additional information.

For details and registration, go to: www.KeysHawaii.com



Plan ahead! Museum Day 2009

Looking for a stellar deal on activities? Bring a copy of the Smithsonian magazine to 'Imiloa Astronomy Center of Hawai'i on Saturday, September 26, 2009 for **free** general admission for two people, in coordination with Smithsonian magazine's Museum Day.



A museum admission card is available in the magazine's September 2009 issue, or can be filled out and downloaded from <http://microsite.smithsonianmag.com/museumday/>

August Skies 2009

Highlights from the Night Sky



August and September are good months to look for the **Zodiacal Light** an hour to two prior to sunrise. This is a faint glow caused by sunlight reflecting off dust particles in the plane of the solar system.

The **Perseid Meteor Shower** (August 10-14) is one of the best annual meteor showers with 50-60 per hour at its peak, with some very bright meteors. Look toward the constellation of **Perseus** from 2:00 am to 4:00 am for best viewing.

Jupiter will be at its best visibility for the year during August, and visible essentially from sunset to sunrise during the month. Small telescopes will show nice views of the cloud bands and Galilean moons.

During the second half of August, use **Saturn** to find faint **Mercury**. Look for both low in the western sky within a half hour of sunset. The best view is on the 18th.

Venus and **Mars** are in the morning sky. Look for both before sunrise. Venus shines brilliantly in Gemini and is hard to miss, Mars by comparison is faint and found within the constellation Taurus.

August's Celestial Calendar

Wednesday, August 5	Hoku (Full Moon) at 2:55pm HST
Thursday, August 6	Ka'awela (Jupiter) 3° south of the Moon
Wednesday, August 12	Peak of Perseid Meteor Shower
Thursday, August 13	Kaloakukahi (Last Quarter Moon) at 8:55am HST
Friday, August 14	Ka'awela (Jupiter) at opposition
Saturday, August 15	Hoku'ulapina'au (Mars) 3° south of the Moon

Monday, August 17
Tuesday, August 18
Thursday, August 20
Monday, August 24
Thursday, August 27

Hokuloa (Venus) 1.7° south of the Moon
Ukialiali'i (Mercury) 3° south of Makulu (Saturn)
Muku (New Moon) at 12:02am HST
Ukialiali'i (Mercury) at greatest eastern elongation
'Olekukahi (First Quarter Moon) at 1:42am HST

Bank of Hawaii Museum Store

It's electric!



'Imiloa's Bank of Hawaii Museum Store has recently received a plethora of new and exciting items - all revolving around the mystery and wonder of electricity. With every item, your keiki will grow, have fun, and learn about science, all at the same time.

From Ein-O's Electric Science Box Kits and build-it-yourself light circuits, to the Electric Plane Launcher of Middlesex University and ScienceTime's Electromagnetic Playground, every toy and kit is both educational and inspiring.

The Bank of Hawaii Museum Store is open Tuesday through Sunday, from 9:00 am to 4:00 pm. If you have any questions, please call 969-9764.

Keiki Kilohoku Korner

Activities every Saturday!

The Keiki Kilohoku Korner, or K-Cubed, is held every Saturday from 9:30 am - 11:00 am for the visitors who come to see Sesame Street's *One World, One Sky: Big Bird's Adventure*, our new 10:00 am and noon keiki planetarium show. Educational activities will take place in 'Imiloa's atrium area.

Storytelling, science demos, and experiments will be offered weekly.



August *Maunakea Directors' Lecture Series: "The Life Cycle of Discovery at the W.M. Keck Observatory"*

Saturday, August 15 at 7:00 pm in the planetarium

On Saturday, August 15, at 7:00 pm, 'Imiloa Astronomy Center will host this month's popular *Maunakea Directors' Lecture Series* program. This month's program will be hosted by Dr. Taft Armandroff, Director of the W.M. Keck Observatory, presenting: "The Life Cycle of Discovery at the W.M. Keck Observatory."



Dr. Taft Armandroff, Director of the W. M. Keck Observatory, is a passionate advocate for the development of new instrumentation and technologies to address the fundamental questions about the universe that astronomers are grappling with today. Dr. Armandroff is a widely-recognized research astronomer with a specialty in Dwarf Spheroidal Galaxies, Stellar Populations in the Galaxy and Nearby Galaxies, Globular Clusters, Chemical Evolution of Galaxies, and Dark Matter. Dr. Armandroff is primary author or co-author of 41 journal articles and several review papers. He has also been a contributor and a leader of teams that have developed world-leading instrumentation for wide-field optical imaging, multi-object optical spectroscopy, and infrared spectroscopy.

The W. M. Keck Observatory is comprised of the twin Keck Telescopes, the world's largest infrared and optical telescopes. Each telescope stands eight stories tall, weighs 300 tons, and operates with nanometer precision. The primary mirrors of the telescopes' are 30 feet in diameter and are each composed of 36 hexagonal segments that work in concert as a single piece of reflective glass. Because of the large size of the mirrors, the Keck telescopes offer the greatest potential clarity and sensitivity available in astronomy, allowing astronomers to probe the local and distant universe with unprecedented precision and power.



The Sky Garden Restaurant will be open from 5:00 to 8:00 pm for dinner.

For more information about *Maunakea Directors' Lecture Series*, please visit the [Events](#), [What's New](#), and [Planetarium](#) pages at imiloahawaii.org.

The *Maunakea Directors' Lecture Series* begins at 7:00 pm and is now on the third Saturday of every month. Because this is the International Year of Astronomy, all *Maunakea Directors' Lecture Series* programs will be **free** for members and the community at-large throughout 2009. First come, first serve. Please plan to arrive at least 15 minutes in advance.

Questions? Please feel free to call Shawn Laatsch, 'Imiloa's Planetarium Manager at

969-9735 or our front desk at 969-9703.

In the Planetarium

Sesame Street's One World, One Sky: Big Bird's Adventure

This 29-minute program follows always-lovable Big Bird and Elmo as they explore the night sky with Hu Hu Zhu, a muppet from Zhima Jie, the Chinese co-production of Sesame Street. Together, they take an imaginary trip from Sesame Street to the moon, where they discover how different it is from Earth. The audience will even learn a couple of Chinese words throughout the muppets' exchange of dialogue, culture, and language. At the end of the show, Big Bird, Elmo, and Hu Hu Zhu pick a friendship star to remind them that no matter how far apart they might be, they can always look into the night sky and cherish their shared memories.



One World, One Sky plays every Saturday at 10:00 am and again at noon in the planetarium.

Pink Floyd's The Wall



Pink Floyd's The Wall has arrived at 'Imiloa Astronomy Center. This classic Pink Floyd album is brought to life with a stunning full-dome interpretation of the sounds and imagery of *The Wall*. The Pink Floyd rock opera album, following the character Pink, was released in 1979, and quickly rose to number one on the Billboard 200. Now audiences can have a complete immersive experience of the hit songs, from "Another Brick in the Wall, Part 2," to the melodic "Comfortably Numb," and from the over-protective "Mother" to the classic "Run like Hell." This digital masterpiece from Starlight Productions leaves the audience wanting more - even when Pink's

wall comes tumbling down.

There is an adult advisory, as the subject matter for some songs may not be appropriate for children. **The show is not recommended for audiences under the age of 14.**

Pink Floyd's The Wall plays every Friday at 7:30 pm and 9:00 pm in the 'Imiloa planetarium.

Admission rates are as follows:

Non-member rate.....	\$10
Individual Member (\$50).....	\$8
Dual Member (\$60).....	\$8
Family Member (\$85).....	\$8

Patron Member (\$125).....\$6
Silver Member (\$250).....FREE
Gold Member (\$500).....FREE

To make reservations please call 969-9703 or visit our front desk.

To upgrade your membership to take advantage of deeper discounts, please call 969-9732 or visit our front desk today.

Seven Wonders

Sponsored by a generous donation from the HPM Building Supply Foundation and the Robert M. and Alice K. Fujimoto Foundation, Seven Wonders is the newest addition to the 'Imiloa planetarium. Join us as we travel thousands of years back in time to explore the glorious Seven Wonders of the world, from Ancient Egypt to Persia and Greece. To conclude the journey, the audience is taken out to the far reaches of space to admire the celestial wonders as well.

Check out the trailer at <http://www.imiloahawaii.org/trailers/>

Produced by the Evans & Sutherland Digital Theater, Seven Wonders is show daily, Tuesday through Sunday, at 1:00 pm and 3:00 pm in the 'Imiloa planetarium.

'Imiloa Resources

Important resources for the new and longtime member

The Bank of Hawaii Museum Store - 969-9764

To truly take home the experience, one has to visit our museum store - featuring a unique selection of books, apparel, crafts, games, and keepsakes from 'Imiloa.

The Sky Garden Restaurant - 969-9753

Open from 7:00 am to 4:00 pm on Tuesday and Wednesday, and from 7:00 am to 8:00 pm between

Thursday and Sunday, the restaurant is the perfect place to bring friends, family, and out-of-town visitors.

For their current menus, please click: [Breakfast, Lunch](#) or [Dinner](#).

Reservations are recommended.

Don't forget to use your 10% member discount! Please present your membership card prior to ordering in the restaurant or at the register in the store. The member discount at the restaurant is applicable for up to 10 people.

Facility Rental Inquiries - 969-9704

Roxanne Ching, 'Imiloa's Reservations Associate, will be happy to assist you with any questions or comments regarding the rental of 'Imiloa facilities.

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