21st Century Education

We are here

Understanding Our Place in the Universe

ILO First Light Galaxy Imaging

Galaxy Garden Hawai‘i

Make Your Own Milky Way Model - Subaru Telescope
Get to Know Our Place in the Universe

Hawai‘i Island Galaxy Education Resources:

Mauna Kea / Mauna Kea Visitors Center
Center of international world-class astronomy with 12 observatories, many with their own Galaxy imaging program. Highest point in the Pacific Ocean at 4,205m (13,796 ft). “Mauna a Wakea” is one of the most sacred areas for Native Hawaiians.

Galaxy Garden
The Galaxy Garden is a 100-foot diameter outdoor scale model of the Milky Way, mapped in living plants and flowers and based on current astrophysical data. Located in Honaunau and created by renowned space artist Jon Lomberg.

‘Imiloa Astronomy Center
‘Imiloa is a premier interpretive center for modern astronomy and Hawaiian cultural traditions. It is an interactive museum, planetarium and education center located on Hilo. www.imiloahawaii.org

Native Hawaiian Cultural Practitioners

Kimo Pihana is a renowned Native Hawaiian Cultural Practitioner and Kahuna. He previously served as a ranger for Mauna Kea Support Services on the top of Mauna Kea.

Leilehua Yuen is a cultural practitioner, kumu hula, writer, and artist, and helps businesses to develop culturally appropriate models for their activities in Hawaii.

Hawaii Island Astronomy Observatories
Subaru, Canada France Hawaii, WM Keck, Gemini North, University of Hawaii, NASA Infrared, UK Infrared, Caltech Submillimeter, James Clerk Maxwell, Submillimeter Array, Very Long Baseline Array

International Lunar Observatory Association
The International Lunar Observatory Association (ILOA) is a Hawaii-based non-profit organization dedicated to expanding human knowledge of the Cosmos through observation from the Moon, via its ILO Precursor, ILO Polar and ILO Human Service missions. Located in Waimea. www.iloa.org

Onizuka Space Center
An educational facility dedicated to Hawaii’s first astronaut, Ellison Onizuka. The Center’s interactive exhibits and videos tell the history of human space flight, physics and daily life in space. Located at the Kona Airport.

PISCES
Pacific International Space Center for Exploration Systems (PISCES) is an international research and education center dedicated to the development of new technologies needed to sustain life on the Moon and beyond. PISCES is based at the University of Hawai‘i Hilo.

Galaxy Dimensions
- Known as the “Milky Way,” a barred spiral galaxy
- Number of Stars in the Galaxy: 200,000,000,000 (2X10^11)
- Total Galaxy Mass: 7.2 X 10^11M_SUN or 10^12M_SUN
- Thickness: 50,000 light years
- Diameter: 100,000 light years
- Period for Solar System (sun, earth, etc.) to circle Milky Way: 225,000,000 years
- Supermassive black hole located at the Galaxy Center
- Earth distance to Galaxy Center: 30,000 light years
- One of billions of galaxies in the observable Universe

All figures are estimates.