



President's Message



Rochester Academy of Science Annual Meeting & Spring Lecture

Friday, April 8, 7:30 p.m.
**Rochester Institute of
Technology, Gosnell Bldg 8,
Room A 300, Park in Lot S.**

Campus map:

<http://www.rit.edu/fa/facilities/content/campus-maps>

The results of the election for the Board of Directors will be announced at the brief business meeting. A ballot is included in this Bulletin on page 2. Please show us your support by returning the completed ballot.

The Spring Lecture will follow the business meeting. We are delighted to have as our guest, Dr. Eric Mamajek of RIT, who will tell us what's happening in our galactic neighborhood. Invite a friend to this free and public lecture.

Jutta Siefert Dudley, Ph. D.
President RAS

***RAS 2016 Election
Ballot is on next page.***



Spring Lecture, Friday April 8, 2016

A Tour of the Galactic Neighborhood

By Eric Mamajek, Ph.D.

I'll discuss our planet's place in space and time with respect to the rest of our Milky Way galaxy - and what we can tell about the stars, their planets, their physical characteristics and processes, and their life cycles. Our planet Earth is orbiting a fairly typical star in the outer parts of a fairly typical spiral galaxy - the Milky Way. The Milky Way contains hundreds of billions of stars. The oldest stars formed shortly after the universe itself (13 billion years), but our Sun and solar system are latecomers to the Galactic party, only having been around for the past third of that time (4.6 billion years). As we observe the night sky with ever more sophisticated telescopes, and instruments that probe ever-wider wavelengths of the electromagnetic spectrum of light, humans can study the processes of stellar birth and death in our galaxy. We owe the existence of our rocky and watery planet, and the chemical elements in our bodies, to nuclear reactions that took place billions of years ago inside the cores of long-since deceased generations of stars that pre-date the formation of our

solar system. Recent discoveries over the past two decades show that planets are a ubiquitous byproduct of the physical processes by which stars collapse from interstellar gas. I'll highlight a few discoveries about stars and planets made here at University of Rochester in recent years.

About Our Speaker



Eric Mamajek, Ph. D

Eric Mamajek is an Associate Professor of Physics & Astronomy at University of Rochester whose research focuses on astronomical observations related to the formation and evolution of stars and planets. He received his Ph.D. in Astronomy (2004) from the University of Arizona, his M.Sc. in Physics (1999) from the University of New South Wales/ADFA while on a Fulbright fellowship, and his B.S. in Astronomy & Astrophysics and Physics (1998)

from Penn State. In 2004, Eric was awarded a 4-year Clay Postdoctoral Fellowship from the Harvard-Smithsonian Center for Astrophysics - the first fellowship recipient to come directly from graduate school.

Professor Mamajek has been involved with several astronomical discoveries: the first transiting extrasolar ring system and candidate moon-forming circumplanetary disk, the nearest historical flyby of a star to our solar system, low-mass stellar companions to the bright stars Alcor, Fomalhaut, and Canopus, three nearby star clusters, and the co-discovery of Comet ISON-Cameron.

Mamajek's group at the university has also contributed to the establishment of a revised and older age scale for young star clusters, leading to systematically longer protoplanetary disk lifetimes and giant planet formation timescales.

At the University of Rochester, Professor Mamajek teaches courses on stellar astrophysics and planetary science. He is also the academic advisor for undergraduate physics & astronomy majors and chair of the physics & astronomy graduate admissions committee. Eric is an active member of the International Astronomical Union (IAU), having recently chaired the IAU Working Group on Nominal Units for Stellar & Planetary Astronomy. Currently he serves on the IAU Executive Committee Working Group for Public Naming of Planets and Planetary Satellites.

* * *

An Astronomical Celebration of the Year of the Monkey

The Monkey Head Nebula is an example of a star-forming region in our galactic neighborhood. Captured by the Hubble Telescope, dark dust is

silhouetted against bright, ionized hydrogen gas. Young stars bombarding the gases with ultraviolet radiation cause the ionization. The image shows a small portion of the nebula more formally designated as NGC 2174. The nebula can be found in the constellation Orion, near the hunter's raised arm and club. It is about 6400 LY away.

Jutta Siefert Dudley



Credit: NASA/ESA, Hubble Heritage Team (STScI/AURA)fs

ROCHESTER ACADEMY OF SCIENCE BALLOT FOR JUNE 2016 – MAY 2017 OFFICERS

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| Completed ballots delivered in person at the RAS Annual Meeting & Spring Lecture on April 8, or can be mailed to the RAS post office box: Rochester Academy of Science, PO Box 92642, Rochester NY 14692-0642 | | | |

Events for March, 2016

For updates to events, check the Academy website, <http://www.rasny.org>, and Section websites.

Fri 4 ASTRONOMY SECTION MEETING

7:30 p.m.–10:00 p.m. RIT, Gosnell Hall, Room A300. ASRAS General Members Meeting. RIT Professor Michael Richmond will speak about the weather on the dwarf planet Pluto. For more information, contact Joel Schmid at (585) 732-5321.

Tues 8 FOSSIL SECTION MEETING

7:30 p.m. Brighton Town Hall. Downstairs meeting room. The meeting will feature a large display of fossils from New York State as well specimens from throughout the world. This meeting will be used as a training session for the upcoming Middle School Science Olympiad. If you are interested in familiarizing yourself with the common fossil found in New York, you are urged to attend. For more information, contact Dan Krisher at 293-9033.

Sat 12 LIFE SCIENCES HERBARIUM WORKSHOP

10:00 a.m. – 2:00 p.m.: Life Sciences section will hold a workshop at the RAS Herbarium, located in the basement of the Rochester Museum and Science Center (RMSC). We will continue work on replacing torn and damaged genus folders, as well as repairing specimens as needed. It is a great way to see interesting plants from the Rochester region and around the world! No experience needed! The Museum

café is open until 2 pm, if you wish to buy lunch. If you plan to attend, please send an RSVP to Elizabeth Pixley. Then, at RMSC, go to the front desk and ask staff person to call ext. 368, phone in the Herbarium. For more information, contact Elizabeth Pixley, herbarium curator (334-0977 or epixley@rochester.rr.com).

Tues 15 MINERAL SECTION MEETING

7:00 – 9:30 p.m. Brighton Town Hall, downstairs community meeting room. Our guest speaker, Van King, is presenting Franklin-Ogdensburg Minerals, a Tale of Micromounts, Fluorescents, Gems, Giant Crystals, and Species. Visitors are welcome. For more information contact Stephen Buschaert at mineralvp@rasny.org or 732-5321.

Wed 16 RAS BOARD MEETING

7:00 p.m. Brighton Town Hall, Stage Conference Room.

ONGOING EVENT

ASRAS will operate the telescope, or one on the sidewalk, at Strasenburgh Planetarium on mostly clear Saturday nights. Contact Jim Seidewand at (585) 703-9876.

OUTSIDE RAS EVENTS

Wed 30 ANTHROPOLOGY SECTION

3:00 p.m. –6:00 p.m. Wells-Brown Room, Rush Rhees Library, U of R. The Anthropology Section has the opportunity to attend a symposium put on by the University of Rochester Archaeology Department. Analysis and Conservation of Cultural Heritage Monuments: Challenges and Approaches Across Disciplines. Contact Karen Wolf for more details and parking information. 670-9709.

Thurs 31 ANTHROPOLOGY SECTION

7:30 p.m. Location may be at the MAG or First Unitarian Church. We will join the AIA for a lecture by Dr. Paolo Vitti about the Mausoleum of Hadrian in Rome. Contact Karen Wolf for more details and venue information. 670-9709.



*Welcome the
Vernal Equinox!
March 20
12:30 a.m. EDT*

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March, 2016 - Vol. 70, #3, Page 4

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ABOUT THE ACADEMY - The Rochester Academy Of Science, Inc. is an organization that has been promoting interest in the natural sciences since 1881, with special focus on the western New York state region. Membership is open to anyone with an interest in science. Dues are minimal for the Academy and are listed in the membership application. Each Section also sets dues to cover Section-related publications and mailings. For applications and/or more information, contact Jutta Dudley, 140 Railroad Mills Road, Pittsford, NY 14534; by telephone (585) 385-2368; or by e-mail <pres@rasny.org>. The **Academy** Internet website is <http://www.rasny.org> Or see us on Facebook at <https://www.facebook.com/RochesterAcademyOfScience>

This “**BULLETIN**” is produced monthly, *except July and September*, by the **Astronomy Section, Rochester Academy of Science**. Submissions are due by the 10th of the month, and may be emailed to editor@rasny.org

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