Life in the Cosmos: Is There Biology in the Universe?

An AIAA Distinguished Speaker Lecture, via Zoom

presented by

Dante Lauretta
Professor of Planetary Science
Dr. Lauretta will discuss the findings from the first set of data from analysis of the samples returned from near-Earth asteroid Bennu. Dr. Lauretta heads the OSIRIS-REx research team at the University of Arizona working on this mission, which has included more than 100 undergraduate and graduate students.
This project will help ensure that the University of Arizona remains at the forefront of planetary exploration for the next decade. The OSIRIS-REx spacecraft launched in September 2016 and began its journey to Bennu, a carbon-rich, near-Earth asteroid. The spacecraft rendezvoused with Bennu in 2018 and successfully obtained a sample in October 2020. The spacecraft embarked on its return voyage to Earth on May 10, 2021. On Sept. 24, 2023, the spacecraft will jettison the sample capsule and send it onto a trajectory to touch down in the Utah desert. Sample analysis will continue until 2025. These samples will be the first for a U.S. mission and may hold clues to the origin of the solar system and the organic molecules that may have seeded life on Earth. Dr. Lauretta will discuss the initial findings from analysis of these samples returned from Bennu.

Dante Lauretta is principal investigator of the OSIRIS-REx mission and a regents professor of planetary science at the University of Arizona’s Lunar and Planetary Laboratory. His research interests focus on the chemistry and mineralogy of asteroids and comets, and he is an expert in the analysis of extraterrestrial materials, including asteroid samples, meteorites and comet particles.

Dr. Lauretta fosters the advancement of the next generation of scientists, engineers, and other space leaders through mentorship and taught coursework which apply his expertise in planetary science and spacecraft mission design & implementation.

The presentation will be on Wednesday, October 18th, 2023 from 12:00 PM to 1:00 PM PDT via Zoom. The Zoom link for the meeting is [here](#).
This lecture is co-sponsored by the Orange County AIAA. The American Institute of Aeronautics and Astronautics, or AIAA, provides the voice of the aerospace profession through innovation, technical excellence and global leadership.

Member benefits include access to in-person and virtual events with up to 10,000 forum participants annually, the opportunity to join 71 Technical Committees, 21 Integration and Outreach Committees, and 20 Committees on Standards at the national level. Members receive the monthly magazine Aerospace America, the flagship publication of the AIAA. Other offerings include access to technical business courses and online learning, and Aerospace Perspective Seminars. AIAA also provides a Career Center, and access to Meeting Papers and Proceedings.

Your Orange County AIAA membership offers you the ability to become involved in all these national AIAA activities, and to take part in many local section activities. These include Professional Development, Communications, Honors and Awards, Membership, Programs/Events, Public Policy, STEM Education, Technical Programs, Young Professionals, and Council Support. If you are interested in finding out more about our council membership, check out our team (https://engage.aiaa.org/orangecounty/new-item/officers) and contact our Membership Chair Bob Welge at bobw@robertsengineeringdevelopment.com to find out more about AIAA membership or to get involved with council activities.

This lecture is also co-sponsored by the Sigma Xi Orange County Chapter which serves Sigma Xi members in Southern California. Sigma Xi has nearly 60,000 members who were elected to membership based on their research achievements and potential. It has more than 500 chapters in North America and around the world. In addition to publishing American Scientist magazine, Sigma Xi provides grants annually to promising young researchers and sponsors a variety of programs supporting ethics in research, science and engineering education, the public understanding of science, international research cooperation and the overall health of the research enterprise. The Society is based in Research Triangle Park, North Carolina. Sigma Xi was established as an independent society.
in 1933, and currently participates in a loosely coordinated lobbying association with Phi Beta Kappa, Phi Kappa Phi and Omicron Delta Kappa known as the Honor Society Caucus. For more information on Sigma Xi membership and benefits, please contact Dr. Peter Kurzhals, President of the Sigma Xi Orange County Chapter, at peterkurzhals@gmail.com.