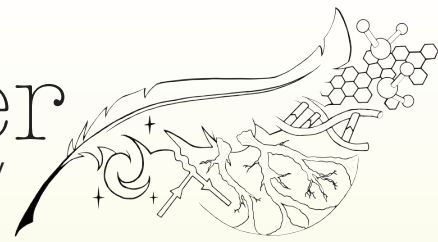


Fall Quarter Newsletter

Volume 1

UCI Department of Physics and Astronomy



Announcements

- Danny Antrim won the US ATLAS Collaboration's 2019 Outstanding Graduate Student Award for his research work in particle physics on the ATLAS experiment at the Large Hadron Collider at the CERN lab in Geneva, Switzerland. Danny is one of approximately 270 U.S. graduate students doing research on ATLAS. He made outstanding contributions to the development of new particle detectors for muons and to searches for SuperSymmetry and for rare decays of the Higgs boson. He presented his research at the annual US ATLAS Physics Workshop. Danny plans to complete his thesis in the coming months. His research is supervised by Professor Taffard.
- Professor Jing Xia was elected a 2019 Fellow of the American Physical Society (APS) for outstanding contributions to his field. Read more [here](#).
- Professor Steven R. White was awarded the 2019 Feenberg Memorial Medal. Read more, [here](#).
- Professor Virginia Trimble has been selected to receive the 2019 Andrew Gemant Award for championing the social perspective of science. Read more, [here](#).
- Professor Liu Chen was Award the Association of Asia-Pacific Physical Societies (AAPPS) Subramanyan Chandrasekhar prize of plasma physics. Read more, [here](#).
- The new mural on the 4th floor of Reines Hall (FRH) shows TAE's latest fusion device Norman, named for founding faculty member and TAE founder Norman Rostoker. This machine combines plasma physics and accelerator physics to produce renewable energy for the electric grid. See the picture below showing the mural, or go to the 4th floor of FRH and take a look!



Research

Aaron Barth's group recently identified a galaxy, NGC 3258, where they are able to measure the rotation of a cold disk of molecular gas orbiting very close to the supermassive black hole at the center of the galaxy. By mapping the rotation of this disk using high-resolution ALMA observations, they were able to obtain a high-precision measurement of the black hole's mass, which is 2.25 billion Solar masses. It is the best measurement of a black hole mass that's been obtained using this particular method. The lead author is Ben Boizelle, who finished his PhD at UCI last year- this was part of his thesis work. He is now a postdoc at Texas A&M. David Buote was also part of the team. You can read the press release, [here](#). You can also read more about the story, [here](#).

Students across all UC campuses were encouraged to apply to the Farmer-Trimble Observational Astronomy workshop at Lick Observatory. Professor Virginia Trimble funded this workshop for all students. Thank you Virginia! Pictured are UCI students Abby Bault, Jack Lubin, Stephanie Stawinski, and Christian Rodriguez.



Some of the first year grad students planned a trip to Joshua Tree. Pictured (from left) are Shreya Shukla, Anne-Katherine Burns, and Jason Baretz.

Upcoming Events

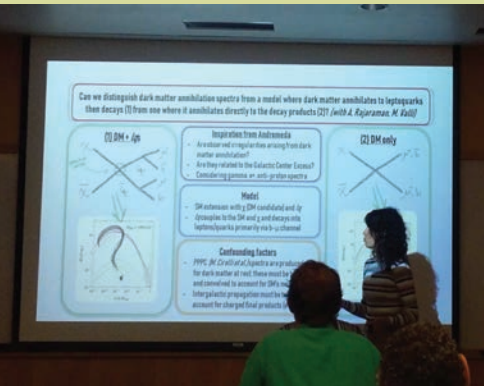
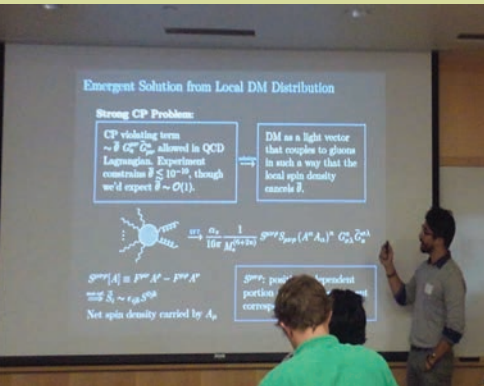
- UCI will be hosting the 2019 SoCal Mechano-biology Symposium on October 30th. Given the increasing acknowledgment of the importance of mechanics in biology, our aim is to foster creativity and collaboration in the community. In this symposium, we will bring together researchers who work with biological systems at different length and time scales and use different methods to study mechanical signal transduction. The program will include keynote speakers, talks from early career scientists, and poster sessions. The conference will focus on encouraging collaboration between researchers in different fields (physics, biology, chemistry, math, medicine, and engineering). Please join us at UC Irvine to share your work. You can find more information about the conference, [here](#).
- UCI is hosting the Conference for Undergraduate Women in Physics (CUWiP) January 17-19, 2020. The APS CUWiP are three-day regional conferences for undergraduate physics majors. The primary goal of the CUWiP conference is to help undergraduate women continue in physics by providing them with the opportunity to experience a professional conference, information about graduate school and professions in physics, and access to other women in physics of all ages with whom they can share experiences, advice, and ideas. The 2019 program at UCI will include research talks, panel discussions about graduate school and careers in physics, workshops and discussions about women in physics, student research talks and poster session, and laboratory tours. You can find more information, including registration, [here](#).

Past Events and Conferences

- Students from David Kirkby's group travelled to Paris this past July for the [LSST Dark Energy Science Collaboration](#). Pictured are group members Bela Abolfathi and Abby Bault, advisor David Kirkby, and other collaboration members at a pickup soccer game, the collaboration dinner, and the Eiffel Tower.



- UCI particle students attended the [SoCal Beyond the Standard Model \(BSM\)](#) workshop at the end of September. In attendance were graduate students Jason Arakawa (pictured left), Rebecca Riley (pictured middle), Jessica Howard, Dillon Berger, Savannah Shively (pictured right), Yvonne Ng, and Michael Waterbury.



In Memoriam

On August 15, we got the news that José Flores Velazquez was taken from us in a drive-by shooting the previous night near his family home in LA. This loss was felt by everyone in the department at UCI and at other universities where José visited. We and the universe lost a friend, brother, son, student, and so much more.

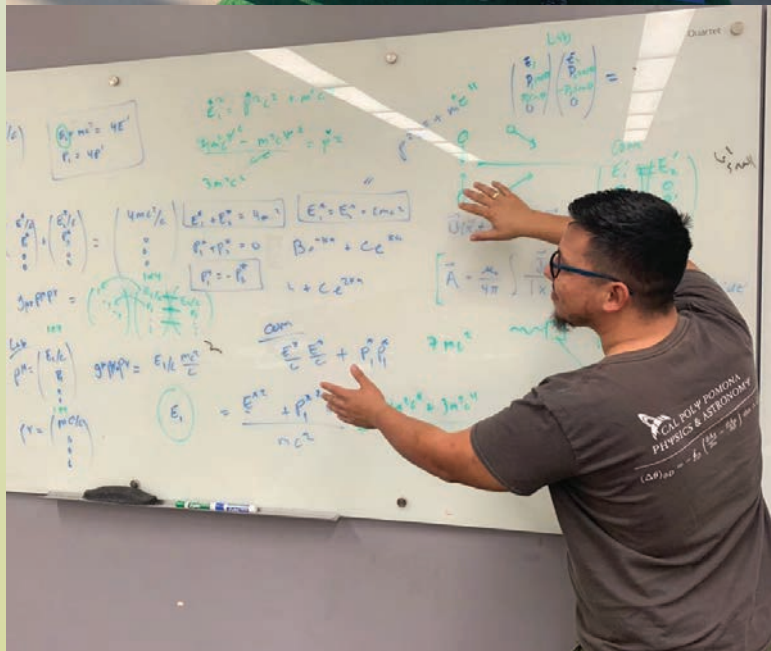
From José's friends:

"José made the west coast feel like a home for those of us new to California, and in the process he made a family out of his friends in the physics department at UCI. We feel so lucky to be a part of it. This loving friendship grew out of his love for his own family, who he visited nearly every weekend, regardless of traffic. He once told us it "recharged and reenergized" him, being with his family gave him the weekly motivation to strive for his best in his science.

In his absence, we will imperfectly strive for our own bests: in our science, in our lives, and with those we love. But now the laughter we share will not be as loud, the dinner table will feel one seat too small, and there will always be a void in our hearts that even happy memories just won't be able to fill.

We hope that whenever you see a picture of a galaxy, in the arms' shimmering spiral, you feel a small sense of wonder, and you see José's beaming smile."

If you or someone you know needs assistance please don't hesitate to reach out. There are many resources for support including the [UCI Counseling Center](#) (949-824-6457), Phong Luong (pbluong@uci.edu), and the campus social worker (campussocialworker@uci.edu, 949-824-0101). Please reach out if you or someone you know is struggling.



Other News

- On behalf of the Department of Physics and Astronomy, we would like to welcome the first-year grads to UCI. We know this year is a busy one, but we wish you all a great year.
- A big congratulations to those who took and passed the department qualifier exam during the 2nd week of September!
- Interested in joining the Blog Team? Email us at physastroblog@uci.edu and we will be happy to find you something to work on and make you a part of the team!
- Interested in joining the Physics Grad Caucus (PGC)? Visit the [PGC website](#) or send an email to physicsgraduatecaucus@gmail.com for more information.
- Attention all astronomy grads! There is a new slack channel for the (astro focused) grads across all the UC campuses. If you did not get an email with a link to join, and would like to join, please send an email to Abby (abault@uci.edu) and she will get you access to the channel.