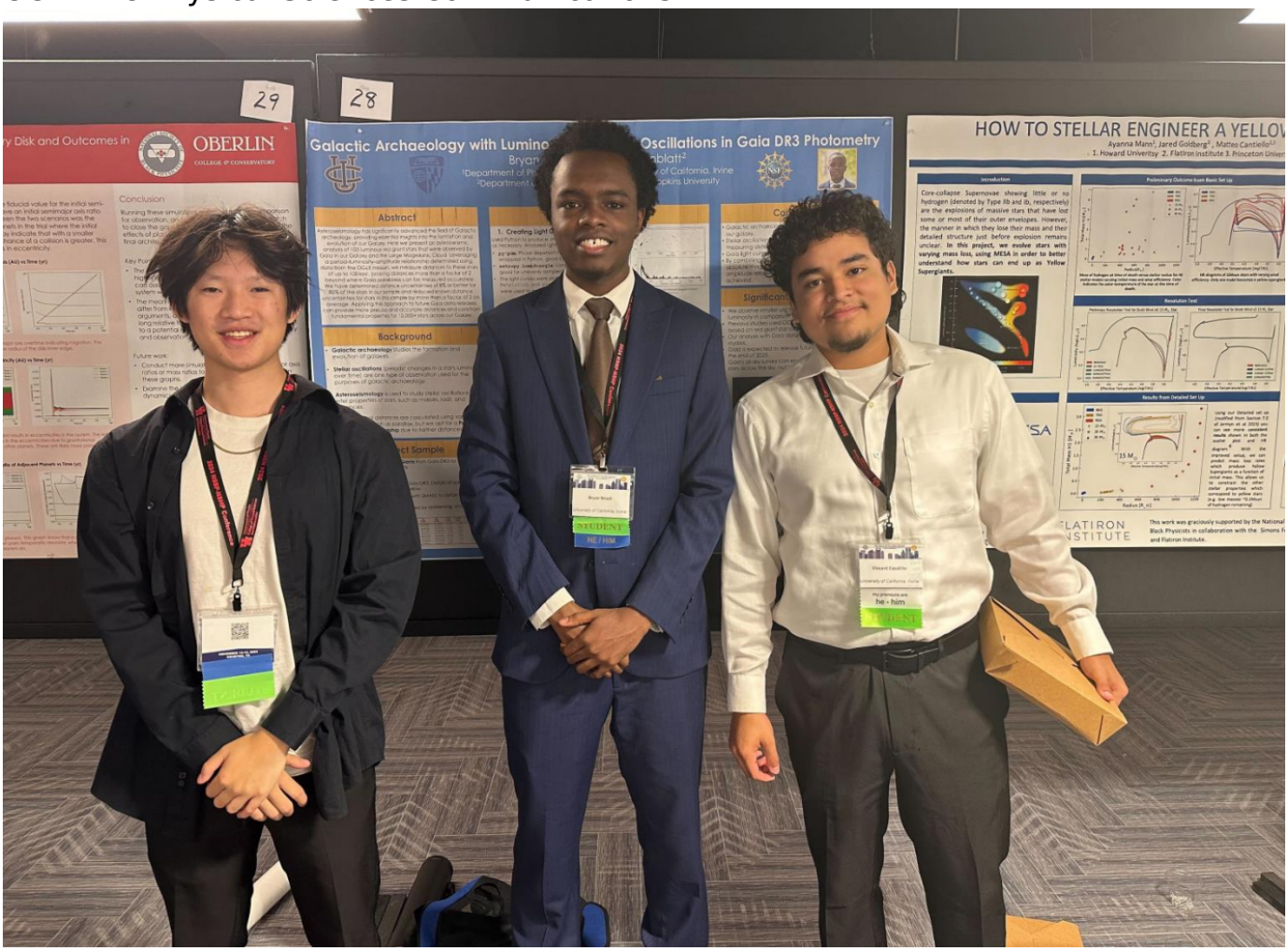
Physics students shine at national conferences

Conferences provide students opportunities to present their research, learn new skills at workshops and build their professional networks.
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UC Irvine Physical Sciences Communications



UC Irvine School of Physical Sciences undergraduates Luke Xia, Bryan Nnadi and Vincent Caudillo pose in front of Nnadi's research poster at the joint NSBP-NSHP conference.

Picture Credit:
UC Irvine

Last November, UC Irvine School of Physical Sciences sent seven7 students to the National Society of Black Physicists x National Society of Hispanic Physicists joint conference in Houston, Texas. Undergraduate and graduate students had the chance to present their research, grow their networks, participate in workshops and learn from diverse leaders and peers.

Ph.D. student Patricia Fofie, a third-year student studying galaxy evolution alongside James Bullock, dean of the UC Irvine School of Physical Sciences and professor of physics & astronomy , gave a presentation on how the supermassive black hole (SMBH) at the center of our home Milky Way galaxy has influenced the galaxy's evolution over time.



Patricia Fofie receives the AAS Beth Brown Memorial Award

"I discussed how the disk structure of Milky Way galaxies in the simulations I used is disrupted by SMBH feedback," said Fofie. "I use a theoretical proxy for morphology called the 'circularity parameter,' which allows me to track how the disks of the simulated galaxy change over time with and without SMBH feedback. What I've found is that SMBH feedback physics doesn't stop galaxies from forming disks, it disrupts how many stars form to build up the disk over time."

The presentation went so well that Fofie received the American Astronomical Society (AAS) Beth Brown Memorial Award – an honor that comes with a free year of AAS membership and invitations to lecture at the University of Michigan and Howard University.

"It felt phenomenal to win the award., I consider presenting one of my strengths, so it feels good to know that I have an award to back it up," said Fofie, who helps lead

Professor Aomawa Shields' Rising Stargirls outreach program at UCI, which deploys the creative arts to connect underrepresented schoolgirls to the science of astronomy.

In January, undergraduate physics major Rasmieh Abdelkarim attended her first-ever conference: the Conference for Undergraduate Women and Gender Minorities in Physics (Cu*iP) at UC San Diego. Cu*iP is a meeting dedicated to elevating historically underrepresented voices in physics.

"I loved hearing from women from around the country explain not only the groundbreaking research they are conducting, but also how they navigate a male-dominated field as women and people of color," said Abdelkarim. "I met so many new people and learned equally as many valuable skills such as networking, applying to graduate programs, resume writing and balancing intense research with your own wellbeing – this certainly will not be the last conference I attend, and I cannot wait for next year's CU*iP."

After she finishes at UCI, Abdelkarim plans to pursue a career in academia studying astrophysics and astrobiology, looking to see if conditions for life exist on celestial bodies within and beyond our solar system.

"I also want outreach and science communication to be a part of my career, so I can provide underrepresented communities easier access to physics and astronomy," Abdelkarim said. "It was this type of outreach that brought me into science in the first place.

Image



20 students represented UC Irvine Physical Sciences the 2025 CU*iP conference. *UC Irvine*

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