Professor Franklin Dollar named fellow of the American Physical Society

Dollar works to further research into high-intensity laser physics, as well as to make his field more inclusive, diverse and equitable.

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Professor Dollar and his graduate students recently travelled to the University of Michigan to perform the first experiments at the ZEUS laser facility — the most powerful laser in the U.S.

Picture Credit:
Franklin Dollar

Today, the American Physical Society (APS) Division of Plasma Physics named Associate Professor Franklin Dollar of the UCI Department of Physics & Astronomy an

APS Fellow. The honor recognizes not only Dollar’s research into high-intensity laser physics, but also his committed efforts to change the culture of his field in the realms of diversity, equity and inclusion (DEI). “The main impacts of my work are in short pulse laser interactions with matter, and their uses as radiation sources,” said Dollar. “I led a lot of early work in ion acceleration, but also have been involved with electron acceleration, positron beams, and directed neutron beams.” Nowadays, Dollar’s research focuses on the ultrafast generation of X-ray pulses — but he sees his DEI work as on par with his scientific endeavors. “Physics has some of the lowest rates of representation among many demographics, including gender and ethnicity, with plasma physics having the lowest among sub disciplines,” Dollar said. “This is a US-centric phenomenon; internationally the disparities are far fewer, and in some cases non-existent in my field. Making the community more equitable and inclusive is a primary goal, and one necessary for the future success of the field in the U.S.” To that end Dollar has worked with undergraduate research programs including UC LEADs, LSAMP and Cal-Bridge, and developed mentorship programs across the physical sciences. “I felt very honored, grateful, and humbled to hear about the fellowship,” said Dollar, who's the UCI Physical Sciences Associate Dean of Graduate Studies. “I was nominated by my postdoctoral and thesis advisors, Professor Margaret Murnane and Professor Karl Krushelnick, who have been steadfast supporters of me throughout my career and provided me the opportunity to make an impact in the field. I also must acknowledge my wife Georgia Sandoval and our daughter. My work involves lots of travel and odd hours, and at times can be overwhelming. Having their accommodation and support throughout it all is the only way I am able to continue.”

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The Future of Fundamental Science
Diversity, Equity and Inclusion
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