

OSSC Combined In-Person and Online Event Dec 14, 2022 "Frontiers of Laser Driven Advanced Accelerators"

Franklin Dollar, Ph.D., UC Irvine, Physics & Astronomy Dept.

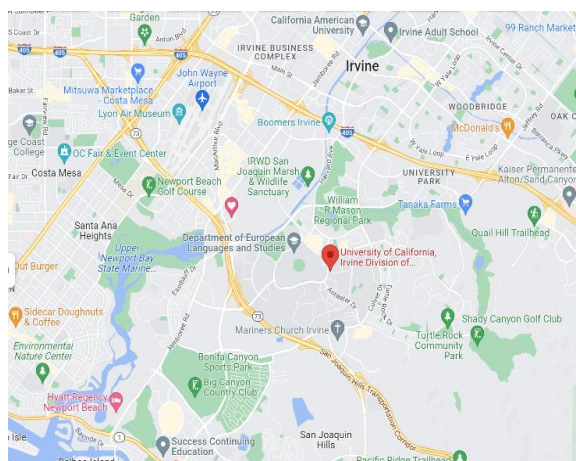
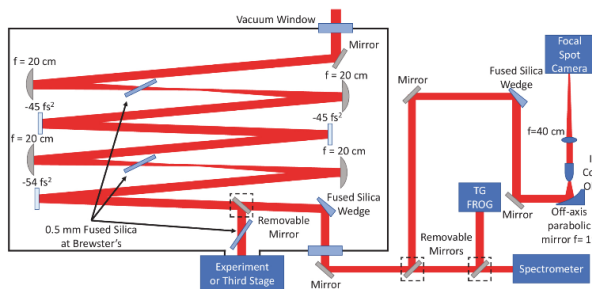
Tabletop Exhibits for Corporate Member Appreciation

Abstract:

Since the advent of Chirped Pulse Amplification, a technology that warranted the 2018 Nobel Prize in Physics, a steady increase in laser intensity has occurred enabling new regime of advanced particle accelerators to be explored. Laser driven accelerators have numerous advantages, being capable of the generation of light pulses with durations faster than any chemical interaction, generation of matter with energy densities higher than the interior of stars, and such high electric fields that matter is formed out of the vacuum itself. I will discuss several schemes of acceleration, and recent developments in the field. In particular, I will show results scaling from commercially available laser systems such as our facility at UCI, to the current experiments involving the ZEUS facility, planned to be the most powerful laser in the US.

About Our Speaker:

Associate Professor Franklin Dollar is an enrolled member of the Dry Creek Band of Pomo Indians and is the Associate Dean of Graduate Studies for the University of California, Irvine School of Physical Sciences. He earned a BS degree in Engineering Physics at the University of California, Berkeley, before receiving his M.S.E. in Electrical Engineering and his PhD in Applied Physics from the University of Michigan, Ann Arbor. Professor Dollar researches intense light matter interactions and their applications towards high energy density science in the Department of Physics & Astronomy. He serves on numerous committees including the Department of Energy's LaserNetUS Scientific Advisory Board, the Fusion Energy Science Advisory Committee (FESAC), and the executive steering committee for the University of California Leadership & Excellence Through Advanced Degrees (UC LEADS) program. He is an NSF Early CAREER awardee, a Kavli Fellow, a Sloan Research Fellow, and a Fellow of the American Physical Society.



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Reception: 6:00pm Dinner: 7:00pm Presentation: 8:00pm

Members: \$35 Non-Members: \$40 Students: \$10

Late Fees of \$10, after 11:59 pm Dec 9

Online Registration until Tue, Dec 13, 2022

[Register Here for In-Person or Online](#)

Venue: [University of California, Irvine Division of Continuing Education Building 8 – CE1](#)

[510 E Peltason Dr, Irvine, CA 92697](#)

Parking at UCI is fee based. See website for details.

[Walking/Parking Map \(uci.edu\)](#)

Please post this notice and invite your friends & colleagues to attend!