

## POSTDOCTORAL RESEARCHER POSITION IN PHYSICS & ASTRONOMY

The Plasma Diagnostics Group (PDG) in the Department of Physics & Astronomy at UCLA seeks outstanding candidates for a position as a Postdoctoral Researcher in the area of Plasma and Fusion Physics. The position will focus on the development and application of advanced millimeter wave diagnostic techniques to measure helicon wave (a.k.a. fast magnetosonic wave) amplitude and spatial power distribution in radio frequency current drive experiments on the DIII-D tokamak at the DIII-D National Fusion Facility in San Diego, California. The experimental effort, to be performed in collaboration with the DIII-D Team, will play a critical role in advancing the physics basis for helicon wave current drive as a reactor-relevant current drive capability. Tasks include (1) commissioning and operating a new, dedicated millimeter wave diagnostic for helicon wave measurements in DIII-D, (2) exploiting the new diagnostic to measure the amplitude and spatial distribution of antenna-launched helicon wave power in DIII-D, and (3) leading and participating in experiments in collaboration with DIII-D researchers and code experts to (a) validate predictive capabilities for helicon wave propagation and current drive, including the AORSA full wave code and the GENRAY ray tracing code (b) and evaluate helicon current drive efficiency. The Postdoctoral Researcher will be stationed in San Diego, at the DIII-D facility, but would be expected to make frequent trips to UCLA to work with researchers at UCLA.

The initial appointment will be for a 12-month period, with the possibility of renewal for an additional 24 months subject to satisfactory performance and renewal of funding. Salary will follow standards for Postdoctoral Researchers and will scale with the applicant's experience. Qualified candidates will have a Ph.D. in Physics or a related field and a demonstrated background directly applicable to the tasks, including significant experience with plasma diagnostic hardware. Experience with millimeter wave hardware and quasi-optical systems are significant pluses. Hiring is contingent on having the right to work in the U.S. and a willingness to relocate to San Diego upon hiring. Candidates must also be willing to work in the DIII-D facility under the provisions for visitors to the facility during the COVID-19 pandemic (<https://www.ga.com/legal/covid-19-visitor-information>). Candidates should provide a *curriculum vitae*, a publication list and arrange for 2-3 letters of reference to be sent to Dr. Neal A. Crocker ([ncrocker@physics.ucla.edu](mailto:ncrocker@physics.ucla.edu)). Review of applications will start on September 25, 2020. However, applications will be accepted until the search until October 30, 2020.

*The University of California is an Equal Opportunity/Affirmative Action Employer. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, disability, age or protected veteran status. For the complete University of California nondiscrimination and affirmative action policy, see: UC Nondiscrimination & Affirmative Action Policy (<http://policy.ucop.edu/doc/4000376/NondiscrimAffirmAct>)*