# Postdoctoral Scholar Researcher Position in Quantum Precision

# Measurements at the University of California, Davis

Job #JPF06431

• PHYSICS / LETTERS AND SCIENCE: MATH/PHY SCI / UC Davis

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## **POSITION OVERVIEW**

Salary range: Salary range: The posted UC salary scales (https://www.ucop.edu/academic-personnelprograms/compensation/index.html) set the minimum pay determined by rank and/or step at appointment.

See Table 23: Postdoctoral Scholar-Employee, Postdoctoral Scholar-Fellow, Postdoctoral Scholar-Paid Direct, Fiscal Year (https://www.ucop.edu/academic-personnel-programs/\_files/2023-24/oct-2023-acadsalary-scales/t23.pdf). The salary range for this position is \$64,480 - \$66,868. "Off-scale salaries", i.e., a salary that is higher than the published system-wide salary at the designated rank and step, are offered when necessary to meet competitive conditions, qualifications, and experience.

## **APPLICATION WINDOW**

Open date: April 15, 2024

**Next review date:** Sunday, Jun 30, 2024 at 11:59pm (Pacific Time) Apply by this date to ensure full consideration by the committee.

Final date: Saturday, Feb 15, 2025 at 11:59pm (Pacific Time)

Applications will continue to be accepted until this date, but those received after the review date will only be considered if the position has not yet been filled.

### POSITION DESCRIPTION

The experimental high energy physics group at the University of California, Davis invites applications for a postdoctoral research position in quantum precision measurements. The group specializes in instrumentation for precision measurements for ultralight dark matter and gravitational wave searches.

The successful candidate will work under the supervision of Prof. Aggarwal and is expected to play a leading role in development of a new tabletop radio-frequency gravitational wave detector. This gravitational wave detector is a Fabry-Perot Michelson interferometer combined with optical trapping of a microdisk in each of the arm cavities. The work will be in close collaboration with the detector team at Northwestern University in Prof. Andrew Geraci's group. As such, there might be opportunities or requirements for traveling to Chicago depending on the experiment requirements. The two detectors will be run jointly.

Prof. Aggarwal is also involved in a search for short-range spin-dependent forces mediated by the QCD axion through the ARIADNE experiment. The group will be building a precision magnetometry facility at UC Davis as well as developing the analysis pipeline for both backgrounds and signals analysis in ARIADNE. Additionally, the group is involved in the LIGO collaboration, primarily focusing on searching for dark matter using LIGO.

A Ph.D. in physics or a related field at the time of appointment is required. The appointment is initially for two years and renewable annually, subject to mutual satisfaction.

The position is open immediately and will remain open until filled. Interested candidates can apply by sending a cover letter, curriculum vitae, and statement of research interests and experience, all in PDF format, and arrange to have at least three letters of reference sent to the Department of Physics & Astronomy at qpm-postdoc@ucdavis.edu.

All inquiries should be directed to qpm-postdoc@ucdavis.edu.

### HOW TO APPLY:

- 1. Apply online here:
- 2. Submit your application, including a Cover Letter, Statement of Research, DEI Statement, and Curriculum Vitae with a list of publications, and
- 3. Arrange to have three Reference Letters sent via application link or to: qpm-postdoc@ucdavis.edu

Contact: qpm-postdoc@ucdavis.edu

## **QUALIFICATIONS**

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Basic qualifications (required at time of application)

Candidates must have completed a Ph.D. in Physics or related area(s) prior to beginning employment.

Preferred qualifications (other preferred, but not required, qualifications for the position)

Experience with various aspects of interferometry, precision measurements, instrumentation, precision measurements, and new physics searches.

## APPLICATION REQUIREMENTS

#### **Document requirements**

- Curriculum Vitae Your most recently updated C.V.
- Cover Letter
- Statement of Research Please note: This is a 4-page limit document and should include your statement of research interests and experience.
- Statement of Teaching (Optional)
- Statement of Contributions to Diversity, Equity, and Inclusion Contributions to diversity, equity, and inclusion documented in the application file will be used to evaluate applicants. Visit <a href="https://academicaffairs.ucdavis.edu/faculty-equity-and-inclusion">https://academicaffairs.ucdavis.edu/faculty-equity-and-inclusion</a> for guidelines about writing a statement and why one is requested. Maximum 2 pages.

#### Reference requirements

2-4 letters of reference required

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Help contact: kjscruggs@ucdavis.edu

## **ABOUT UC DAVIS**

UC Davis is a smoke and tobacco-free campus (http://breathefree.ucdavis.edu/).

We are an Affirmative Action/Equal Opportunity employer, and particularly encourage applications from members of historically underrepresented racial/ethnic groups, women, individuals' with disabilities, veterans, LGBTQ community members, and others who demonstrate the ability to help us achieve our vision of a diverse and inclusive community. For the complete University of California nondiscrimination and affirmative action policy see: <a href="http://policy.ucop.edu/doc/4000376/NondiscrimAffirmAct">http://policy.ucop.edu/doc/4000376/NondiscrimAffirmAct</a>

Under Federal law, the University of California may employ only individuals who are legally able to work in the United States as established by providing documents as specified in the Immigration Reform and Control Act of 1986. Certain UC Davis positions funded by federal contracts or sub-contracts require the selected candidate to pass an E-Verify check. More information is available at: http://www.uscis.gov/e-verify

The University of California, Davis (UC Davis) is committed to inclusive excellence by advancing equity, diversity and inclusion in all that we do. UC Davis celebrates the multi-cultural diversity of its community by creating a welcoming and inclusive environment demonstrated through a variety of resources and programs available to academics, staff, and students. Diversity, equity, inclusion, and belonging are core values of UC Davis that are embedded within our Principles of Community and are tied with how to best serve our student population. Our excellence in research, teaching, and service can best be fully realized by members of our academic community who share our commitment to these values, which are included in our Diversity and Inclusion Strategic Vision, our strategic plan: "To Boldly Go," our Principles of Community, the Office of Academic Affairs' Mission Statement, and the UC Board of Regents Policy 4400: Policy on University of California Diversity Statement. UC Davis is making important progress towards our goal of achieving federal designation as a Hispanic-Serving Institution and an Asian American, Native American, and Pacific Islander-Serving Institution. The Office of Diversity, Equity, and Inclusion offers a plethora of resources on their website, and the Office of Health Equity, Diversity, and Inclusion (HEDI) has outlined similar goals in their Anti-Racism and DEI Action Plan." There are a plethora of links available on the About Us webpage where you can learn more about our Administration, Diversity and Inclusion, Rankings, Locations, Native American Land Acknowledgement, Sustainability, Visiting UC Davis, UC Davis Health, and Campus Safety.

The university is consistently ranked among the top institutions in the world for campus sustainability practices by the UI Green Metric World University Rankings. UC Davis is focused on achieving net-zero greenhouse gas emissions and repeatedly shown its commitment to preserving a healthy and sustainable environment for generations to come.

As a University employee, you will be required to comply with all applicable University policies and/or collective bargaining agreements, as may be amended from time to time. Federal, state, or local government directives may impose additional requirements.

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## **JOB LOCATION**

Davis, CA