Postdoctoral Employee - Physics/Astrophysics - Physics Department
University of California Berkeley

Job Title	Postdoctoral Employee - Physics/Astrophysics - Physics Department
Department	Physics Department
Institution	University of California Berkeley Berkeley, California
Date Posted	Aug. 15, 2025
Application Deadline	09/15/2025
Position Start Date	Available immediately
Job Categories	Post-Doc
Academic Field(s)	Physics - General Astronomy and Astrophysics
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Job Description

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Position overview
Salary range: The UC postdoc salary scales set the minimum pay determined by experience level at appointment. See the following table(s) for the current salary scale(s) for this position: https://www.ucop.edu/academic-personnel-programs/_files/2024-25/oct-2024-scales/t23.pdf. The current minimum salary range for this position is $66,737-$74,425. Salaries above the minimum may

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be offered when necessary to meet competitive conditions.

Percent time: 100%

Anticipated start: Fall 2025

Position duration: 2 years with possibility of extension

Application Window
Open date: August 13, 2025

Next review date: Thursday, Aug 28, 2025 at 11:59pm (Pacific Time)
Apply by this date to ensure full consideration by the committee.

Final date: Monday, Sep 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

Saul Perlmutter is Professor of Physics at UC Berkeley and Senior Scientist at Lawrence Berkeley National Laboratory (LBNL), where he is the leader of the international Supernova Cosmology Project, among other initiatives. This position will work with research scientists, engineers, and data scientists and other scholars within his academic and research communities.

We are seeking one or more applicants to develop forward modeling software and a characterization and calibration plan for a new space-based astronomical image slicing spectrograph. The goal is to create and apply a 'digital twin' of the as-built system to simulate and optimize its performance.

Key responsibilities include:

- Developing forward modeling software to simulate the spectrograph's behavior.
- Designing and executing a characterization and calibration plan for the instrument.
- Collaborating on the creation of a digital twin to mirror the physical system's performance.

Union: https://ucnet.universityofcalifornia.edu/resources/employment-policies-contracts/bargaining-

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units/postdoctoral-scholars/contract/

Qualifications
Basic qualifications (required at time of application)
PhD or equivalent international degree, or enrolled in a PhD or equivalent international degree granting program

Additional qualifications (required at time of start)

- PhD or equivalent international degree.

Preferred qualifications

- PhD in physics or astrophysics field.
- Strong programming skills (e.g., Python) for scientific computing and simulation.
- Familiarity with machine learning (ML) techniques for optimizing models or analyzing complex datasets.
- Experience with space-based instrumentation or similar high-precision systems.
- Demonstrated expertise in one or more of the following areas: 1) Optical modeling: Ray-trace optics, diffractive optics, and stray light analysis. 2) Thermal analysis: Thermal emission modeling and its impact on instrument performance. 3) Detector systems: Characterization and modeling of HxRG detector readout schemes and analysis protocols. 4) Data analysis: Experience with instrumentation data analysis software and algorithms.

Application Requirements

Document requirements

- Curriculum Vitae - Your most recently updated C.V.
- Cover Letter
- Examples of relevant work

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Reference requirements

- 3 required (contact information only)

Apply link: https://aprecruit.berkeley.edu/JPF04996

Help contact: krystle.bartholomew@berkeley.edu

About UC Berkeley

UC Berkeley is committed to diversity, equity, inclusion, and belonging in our public mission of research, teaching, and service, consistent with UC Regents Policy 4400 and University of California Academic Personnel policy (APM 210 1-d). These values are embedded in our Principles of Community , which reflect our passion for critical inquiry, debate, discovery and innovation, and our deep commitment to contributing to a better world. Every member of the UC Berkeley community has a role in sustaining a safe, caring and humane environment in which these values can thrive.

The University of California, Berkeley is an Equal Opportunity 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 more information, please refer to the University of California's Affirmative Action and Nondiscrimination in Employment Policy and the University of California's Anti-Discrimination Policy.

In searches when letters of reference are required all letters will be treated as confidential per University of California policy and California state law. Please refer potential referees, including when letters are provided via a third party (i.e., dossier service or career center), to the UC Berkeley statement of confidentiality prior to submitting their letter.

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.

As a condition of employment, the finalist will be required to disclose if they are subject to any **final** administrative or judicial decisions within the last seven years determining that they committed any

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misconduct.

- "Misconduct" means any violation of the policies or laws governing conduct at the applicant's previous place of employment, including, but not limited to, violations of policies or laws prohibiting sexual harassment, sexual assault, or other forms of harassment or discrimination, as defined by the employer.
- UC Sexual Violence and Sexual Harassment Policy
- UC Anti-Discrimination Policy
- APM - 035: Affirmative Action and Nondiscrimination in Employment

Job location
Berkeley, CA

To apply, visit https://aprecruit.berkeley.edu/JPF04996

Contact Information

Please reference Academickeys in your cover letter when applying for or inquiring about this job announcement.

Contact

N/A
University of California Berkeley
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