Special RPM: Academic Career Panel — Summary

Hosted by the Physics@Work Committee, LBNL – October 1, 2026

Building 50 Auditorium (hybrid), 3:00–5:00 pm

Panelists:

- Victoria Xu (UC Berkeley)
- Daniel Akerib (Stanford/SLAC)
- Christian Bauer (LBNL)
- Daniel McKinsey (UC Berkeley & LBNL)

Moderator: John Groh (Physics@Work Committee)

The panel focused on the faculty and national lab job application and interview process, aimed mainly at postdocs. After brief introductions and one opening question per panelist, the session was open audience Q&A. As announced at the event, individual comments below are summarized without attribution.

How Hiring Works

National labs

- Major HEP labs also have career-track fellowships comparable to assistant professor rank (e.g., LBNL Divisional Fellows, SLAC Panofsky Fellows, Fermilab Wilson Fellows). These searches are broad across the lab and can draw 300–400 applicants.
- For large searches, a long list may be built from research statements and records alone, with letters requested only afterward, followed by Zoom interviews and visits.
- Lab hiring weighs whether a proposed program could realistically be supported at that lab. Proposals should align with DOE priorities and the lab's existing program; new directions (e.g., AI/ML, quantum) are welcome if they are credible both scientifically and in funding terms.
- Labs differ: some, like LBNL and SLAC, are academic in character and hope new hires will start programs; others are more short-term and funding-driven.

Universities

- The variation between universities, and even between groups in one department, is often larger than the difference between universities and labs.
- Some experimental assistant professor roles mean joining an existing program; others expect you to find your own funding and build your own program. Job ads rarely reveal which, so talk to people who know the department.
- Universities are generally freer than labs to let you pursue whatever you can get funded.

Application Materials

Research statement

- Committees look for depth: credible evidence that you are a world expert in something. A single paper in each of many topics is hard to evaluate.
- They also want breadth, signs you can grow into new directions, since everyone expects a new hire to eventually do something different. A paper or two with adjacent fields helps.
- You can't change your past work, but you can tell its story in a way that resonates with each institution.
- Think in terms of a *program*, not a project: how it would grow over years, with concrete milestones.
- Have a concrete plan for what you'd accomplish by tenure (about 6 years) and how you'd use startup funds to win external support and recruit students.
- A good portfolio mixes reliable, fundable work with one or two higher-risk, higher-reward ideas.
- The right time horizon depends on the field: a collider experiment may need a 20–30-year view, while a fast-moving field like quantum computing makes anything beyond ~5 years speculative. Building capabilities to pursue directions as they emerge is a reasonable plan.
- Scale the program to the institution: what fits a large research university would be implausible at a small undergraduate college, and vice versa.

Teaching statement

- It is unlikely to win you the job (perhaps ~10% of the emphasis), but a poor one can hurt you. Don't overinvest, but don't neglect it.
- Committees know postdocs have little teaching experience. Draw on mentoring of students, personal experience, and which courses you'd want to teach and why.
- Write it in your own voice; don't have AI generate it. Statements that treat teaching as a burden come across clearly to readers.
- Use it to reflect honestly on whether you would enjoy teaching, since it is a core part of a faculty job.

Tailoring

- Broad and subfield-specific searches call for essentially the same application: focus on the science and why it's exciting.
- Present yourself as you are rather than over-adapting to what you think a committee wants. Committees sometimes find a candidate they weren't looking for and push for a second hire.
- For a very targeted search you genuinely want, some tailoring makes sense, as does noting how you'd complement each department's existing groups.
- Once you've applied to one position, the rest are easier, since materials overlap by about 90%.

Interviews and Job Talks

- Prepare by learning who you'll meet and what they work on, so you can explain why your research matters to them.
- Present your real strengths; don't try to be something you're not. Committees usually see through it, and you may not enjoy a job won that way.
- You are hired for what you do well now, but show a forward-looking vision of where your research can go.

- Go in with confidence. Times are hard and applicant pools are large, but confidence makes a real difference.
- Be ready to discuss lab space and startup needs if asked.
- Ask to see the lab space. Peeling paint signals deferred maintenance that may be paid for out of your startup.
- Never give your job talk for the first time at the interview. Practice it, first to yourself and then to colleagues, including people from other fields, at least two weeks ahead so there is time to rework it. Feedback given three days before is too late to act on.
- A strong talk can also stand in for teaching credentials in a committee's eyes.

Networking

- Knowing the candidate personally helps when a committee member can vouch for them, but many hires are made without any prior connection.
- Networking is valuable mainly for a broader view of the field. A contact inside an institution can explain its politics, for example whether an "open" search actually has a preferred candidate.
- You don't have to work the room at conferences. Building connections through people you already know works too.
- "Every talk is a job talk": reviewers and future search committee members may be in any audience, so present your work often and prepare each talk well.
- Take advantage of the Berkeley area's many seminars and groups. Attending talks in adjacent areas broadens your ideas, opens future directions, and helps you speak knowledgeably with people when you interview.

Offers and Negotiation

- The following primarily applies to university positions, the process differs for lab positions
- You usually negotiate one level up: a department chair (who then goes to the dean) at a university, or the division director at a lab. Members of the group you'd join are your best source on what is realistic.
- Startup packages can vary by a factor of 10 or more between institutions.
- Panelists had never seen an offer rescinded for negotiating hard. The worst case is a clear "that isn't possible."
- Ask for what you can justify. Treat the startup request like your first proposal: no unjustified multimillion-dollar asks, but don't accept a tiny package if you need to build a new lab.
- The chair is your advocate, so give them concrete reasons to pass on (e.g., "two postdocs, one leading each half of the program"), not just "I need more."
- A competing offer is the strongest leverage. You have maximum leverage at the offer stage, after the institution has invested heavily in choosing you.
- Negotiate generously up front. Startup can fund things that are nearly impossible to get later, such as lab renovation and equipment. Most grants favor personnel, and money raised later requires program officers, proposals, and sponsored projects offices.
- For lab space, describe your requirements (power, chilled water, compressed air, overhead crane, high bay, isolation) rather than estimating costs yourself. One panelist was told to expect roughly $1,000–3,000 per square foot for renovation, plus significant time.

- Lay out the space and equipment, build a spreadsheet, get quotes where possible, and identify what must be solved up front versus what can evolve.
- Be bold about infrastructure your program will need over the next decade, but right-size the request to the institution's means and timeline.
- Get input from your PhD and postdoc advisors, mentors, and members of the hiring group.

Planning Your Postdoc

- Work on what genuinely excites you. If you're not excited, change direction. A dull first postdoc led one panelist to switch fields for a second one.
- When choosing among equally exciting projects, consider which builds on your foundation or moves you gradually toward a field you want to enter.
- Careers rarely follow a plan. Panelists' paths were shaped by chance encounters, reading outside their field, and following interesting science.
- A year or two into a postdoc, draft the research statement you'd want to submit later, then work toward filling its gaps.
- Consider applying a year early so your dream job isn't your "first pancake." You'll have drafts and interview experience to build on.

Research and staff scientist positions

- At LBNL, staff are paid to do research; campus faculty are paid primarily to teach. LBNL and SLAC are among the most academic national labs, while mission-driven labs (e.g., NNSA labs) set research direction more from the top.
- Lab staff scientists provide long-term technical continuity and often move between projects as priorities shift. Panelists described this as a satisfying path that doesn't require raising money or setting the program's vision.
- Such roles are much harder to sustain at universities, where they are usually short-lived and on soft money. In budget cuts, universities tend to keep postdocs over research scientists.

Outside the U.S.

- The independent U.S. assistant professorship is fairly unique. In much of Europe and Japan, junior faculty often work as subgroup leaders under a senior PI rather than running independently funded programs.
- U.S. postdocs are typically capped at about 5 years; elsewhere, researchers may remain in postdoc-level roles for decades.
- Permanent, hard-money positions in fundamental science vary widely by country and can be scarce.