

Early Career Event at NSTAR 2026: A US Perspective

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- Research Landscape in the United States
- Career Pathways and Academic System
- Opportunities for Early-Career Researchers
- Current Challenges and Realities
- Personal Advice and Suggestions

Research Landscape in the United States

Research Landscape in the United States

2023 Nuclear Science Advisory Committee Long Range Plan for Nuclear Science
<https://nuclearsciencefuture.org/> (206 pages)

LRP Recommendations

- 1) The highest priority of the nuclear science community is to **capitalize on the extraordinary opportunities for scientific discovery** made possible by the substantial and sustained investments of the United States. ... Continuing effective operation of the national user facilities **ATLAS, CEBAF, and FRIB ... RHIC → EIC**
- 2) As the **highest priority for new experiment** construction, we recommend that the United States lead an international consortium that will undertake a **neutrinoless double beta decay** campaign, featuring the expeditious construction of ton-scale experiments, using different isotopes and complementary techniques.
- 3) We recommend the expeditious **completion of the EIC as the highest priority for facility construction.**
- 4) We recommend capitalizing on the unique ways in which **nuclear physics can advance discovery science and applications for society** by investing in additional projects and new strategic opportunities. ... **FRIB↑, CEBAF↑, LHC↑ ... AI AI AI AI**

Career Pathways and Academic System

Career Pathways and Academic System

- University degrees in Physics: Bachelor's (BS 4y), Master's (MS 1-2y), and Doctorate (**PhD** 6-7y after BS)
- Career with PhD:
 - Academic (**R1, R2, R3**) Institutions:
 - Post-Doc (3y switch 3y **or** 0y), tenure or **professional** track
 - Assistant (6y), Associate **with Tenure** (4+y), Full Professor (∞), ... →
 - Instructor (5+y), Senior Instructor (4+y), Principal Instructor ($\leq$ retirement)
 - Assistant (5+y), Associate (4+y), Full Professor ($\leq$ retirement)
 - Research Institutions:
 - Post-Doc (3y switch 3y), Staff, Senior Staff Scientist, ... →
 - Industry:
 - Research and Development ... (1-3y+) ... →

Opportunities for Early-Career Researchers

Opportunities for Early-Career Researchers

- The primary U.S. research exchange initiative is the **Fulbright Program**
 - US out: Fulbright U.S. Scholar Program
 - US in: Fulbright Visiting Scholar Program ($\leq 1y$)
or **IREX** Research Scholar Program (up to 5y)
or **from your country ...**
or **just be paid ...**
- Getting into **large collaborations**: either academic or research institutions
- What should you bring:
 - Talent
 - Love for research and/or teaching
 - **AI AI AI AI**

Current Challenges and Realities

Current Challenges and Realities



Left → current situation

← Right



Yes, it is political and I shouldn't talk about it

- Visa:
 - H1B >\$100k, O alternative, F ≤4y, J still o.k.
- Malign Foreign Talent Recruitment Program:
 - CHIPS and Science Act of 2022: China, Russia, Iran, North Korea, Cuba, Venezuela
 - Infringement upon freedom of research and speech
- Training:
 - Safety, Security, DEI, Title IX, ...
- Federal Funding: ...
 - NIH, NSF, DOE, DOD, ...
- Work-life balance: ...

Personal Advice and Suggestions

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Follow your talents,

find out what you really want to do,

where you can do it best,

pursue it to the best of your ability,

enjoy what you do,

and don't avoid AI AI AI AI