



Working on a Man-made Star

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PPPL Overview

Who are we?

And who are you?



Visit us at:
www.pppl.gov

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Shannon Swilley Greco



- Originally from Houston, TX
- Senior Program Leader in the Science Education Department @ PPPL
- Get to play with zappy stuff... FOR SCIENCE.



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Yolanda Milligan



- About Me:
- Sr. Talent Acquisition Partner
- Kean University - Bachelors in Marketing
- Devry University - Keller Graduate School of Management - MBA
- Joined PPPL in October 2022



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Christina Liebrich



- About Me:
- Talent Acquisition Manager
- University of Maryland-
Bachelors in Psychology
- Rutgers University - Masters in
HR Management and Masters in
Labor & Employment Relations
- Joined PPPL October 2020



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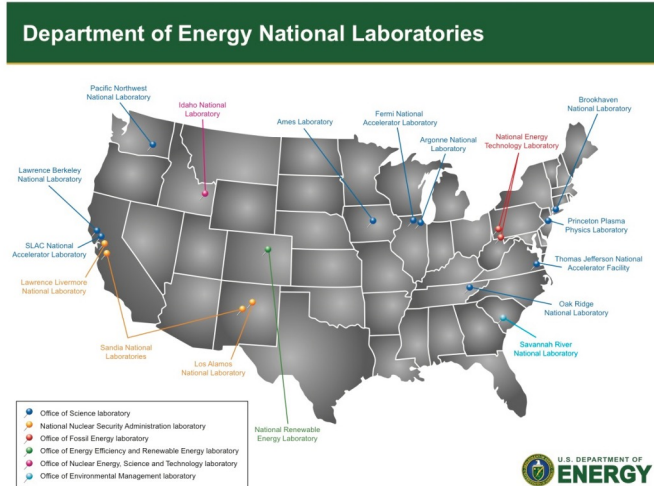
Questions:
What is our mission?
What do we do?

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Princeton Plasma Physics Laboratory

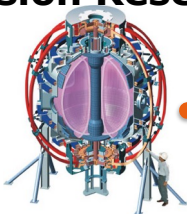
- PPPL is one of 17 DoE national laboratories.
- We are managed by Princeton University but have a government mandate that focuses on fusion energy research and basic plasma science.
- 600+ employees all contributing to the mission of clean energy



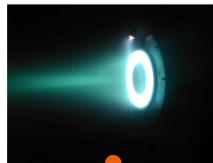
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At PPPL, We Study Plasma

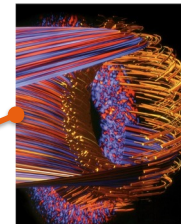
Fusion Research



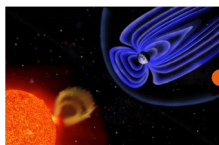
Basic Plasma Physics



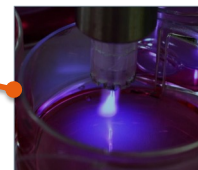
Plasma Theory and Simulation



Astrophysical Plasmas



Plasma in Other Fields (e.g. Medicine)



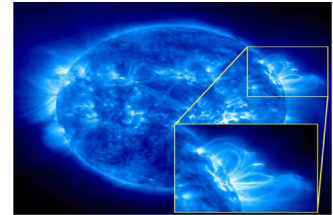
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Examples of Plasma

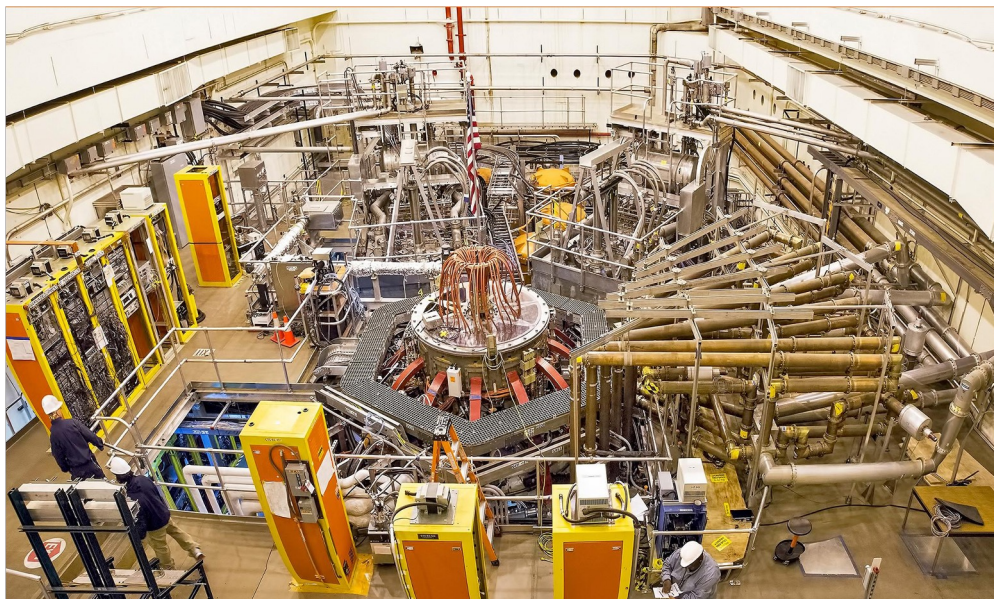


- 1) Lightning
- 2) Sun / Stars
- 3) Interstellar "Gas" / Nebulae
- 4) Northern Lights
- 5) Neon Lights / Florescent Lights
- 6) Plasma TV
- 7) Flames



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NSTX-U



 5/11/20

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Inside NSTX-U

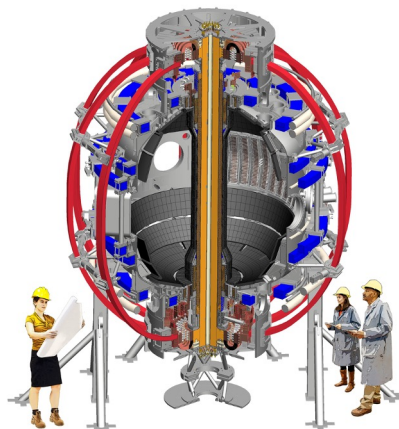


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NSTX-U Diagram



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Undergraduate Opportunities



- Internships and Workshops
 - Science Undergraduate Laboratory Internship (SULI)
 - Community College Internship (CCI)
 - Engineering Internship
 - Plasma and Fusion Undergraduate Research Opportunities (PFURO)
 - Undergraduate Workshop in Plasma Physics



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Student Intern Projects Samples



Characterization and Simulation of Metastability in Plasmas

David Wasserman, Advisor: Steve Cowley

Investigation of PMI and IAD on LTX- β Surfaces via Simulation and Micro-trench

Jhovanna Garcia, Advisor: Bruce E. Koel (Princeton U.), Shota Abe and Anurag Maan (PPPL)

Constructing MUSE; A permanent magnet stellarator

Mohammed Haque, Advisor: Michael Zarnstorff

Simulating Guiding Center Motion in NSTX-U with ORBIT-GPU

Nathaniel Chen, Advisor: Phillip Bonfiglio

Exploring the formation and robustness of partially relaxed MHD states

Matt Ketkaroonkul, Advisor: Adelle Wright

Temperature measurement of Warm Dense Matter using Streaked Optical Pyrometry

Joseph Vargas, Advisor: Sophia Malko

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CU*IP 

APS Conference for Undergraduate Women and Gender Minorities in Physics



Conferences for Undergraduate
Women in Physics
#apscuwip

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Employment Opportunities




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Graduate Opportunities




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PPPL Employee Benefits



- Medical, Dental and Vision; different plan options
- Flexible Spending Accounts
- STD/LTD
- Tuition Reimbursement
- Retirement/Pension Plan – Princeton contributes 9.3%
- Various health and wellness resources (optional)
- Various life insurances
- Generous paid time off (24 vacation days, 11 university holidays, sick days and 2 personal days)

- Asian Cultural Alliance (ACA)
- Latino Princetonians at PPPL (LP)
- Women in Engineering (WiE)
- Women in Plasma Physics (WiPP)
- Young Professionals Network (YPN)
- *Employees of PPPL can and are encouraged to join ERGs at Princeton University*

Comprehensive Health/Welfare Benefits:

Employee & Affinity Resource Groups

- On-site gym
- Health Coach
- Yoga Club
- Walk and Run Club
- Snow Ski and Board Club
- On-site subsidized cafeteria
- Flexible work arrangements

- Communitarity
- United Way
- Science on Saturdays
- Science Bowl
- PPPL Tours (pre-covid-19)
- Young Women's Conference in STEM
- American Physical Society (APS) Student Reception Event
- *Employees of PPPL can be a part of participating Princeton University's community events*

PPPL Recreation & Perks

Community Involvement

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