



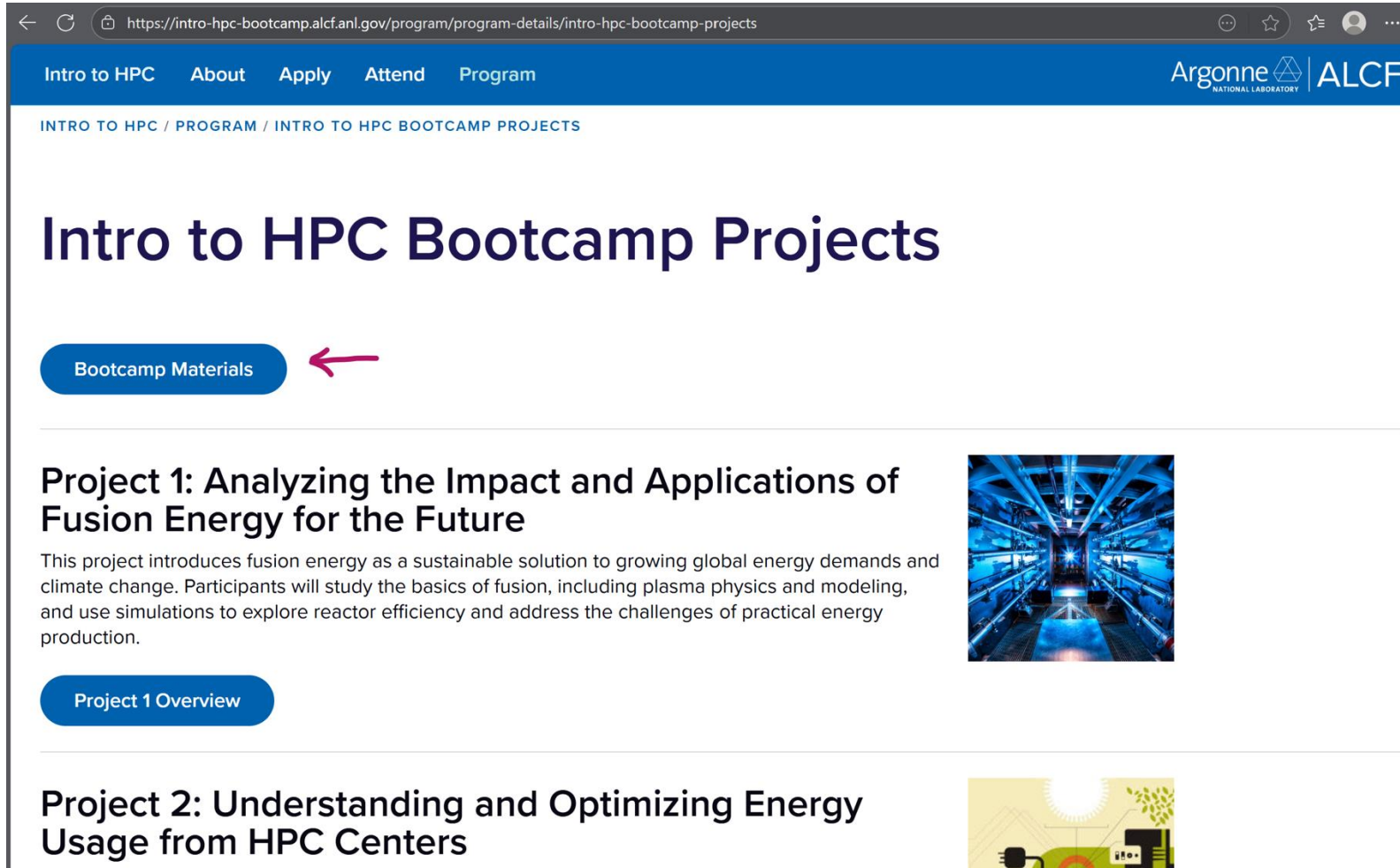
# Bootcamp Projects Overview

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Argonne National Laboratory

August 11, 2025

# Where are project materials?



Intro to HPC About Apply Attend Program

Argonne NATIONAL LABORATORY | ALCF

INTRO TO HPC / PROGRAM / INTRO TO HPC BOOTCAMP PROJECTS

## Intro to HPC Bootcamp Projects

[Bootcamp Materials](#)

### Project 1: Analyzing the Impact and Applications of Fusion Energy for the Future

This project introduces fusion energy as a sustainable solution to growing global energy demands and climate change. Participants will study the basics of fusion, including plasma physics and modeling, and use simulations to explore reactor efficiency and address the challenges of practical energy production.

[Project 1 Overview](#)

### Project 2: Understanding and Optimizing Energy Usage from HPC Centers



GitHub Repo

# Project 1: Analyzing the Impact and Applications of Fusion Energy for the Future

## Project Leads



**Charles Lively**  
Peer Mentors



**Rebecca Hartman-Baker**



**Helen He**



**Lipi Gupta**



**Kelly Rowland**



**Amy Huang**



**Jose Rodriguez Rios**

Group 1A		Group 1B
Aly Ayyob		Keioko Haynes
Joy Wang		Maria Jimenez Guillermo
Caleb Morris		Sunshine Pang
Daisy Diaz-Garcia		Khuaja Sediqi
Emma Ronai		Masia Wisdom
Peer Mentors		
Jose Rodriguez - 1A		Amy Huang - 1B



# Project 2: Understanding and Optimizing Energy Usage from HPC Centers

## Project Leads



**Charles Lively**  
Peer Mentors



**Rebecca Hartman-Baker**



**Helen He**



**Lipi Gupta**



**Kelly Rowland**



**Carmen Gonzalez Torres**



**Lily Toma**

Group 2A		Group 2B
Jake Boadilla		Daniyal Khokhar
Juvenal Barajas		Gabriela Rodriguez
Kirtan Patel		Isis Reveron
Samantha Dertouzos		Jorge Lopez Leon
Mereum Fernando		Natalia Mena-Santiago
Peer Mentors		
Lilly Toma - 2A		Maricarmen Gonzalez Torres - 2B

# Project 3: The Anatomy of a Power Outage

## Project Leads



**Thomas Fillers**



**Suzanne Parete-Koon**

## Peer Mentors



**Wiktoria Zielinska**



**Pierre Harbin**

Group 3A	Group 3B
Bianca Udeogu	Joseph Udani
Elijah Potter	Quadri Taiwo
Gleniarys Rivera Torres	Leen Abdel Karim
Justin Dunbar	Valeria Gonzalez
Kayla Bentley	Nick Chaiyachakorn
Peer Mentors	
Pierre Harbin - 3A	Wiktoria Zielinska - 3B

# Project 4: Short-Term Load Forecasting Using Machine Learning

## Project Leads



**Nrushad Joshi**



**Suzanne Parete-Koon**

## Peer Mentors



**Gladys Chen**



**Nicky Ishaak**



Group 4A

Alex Gorczowski  
Amy Kodama  
Claudia Jimenez  
Fatima Rasheed

Group 4B

Marques Lewis  
Monica Zapata Villegas  
Pragna Amilineni  
Kareem Amin  
Yasmin Sawaf

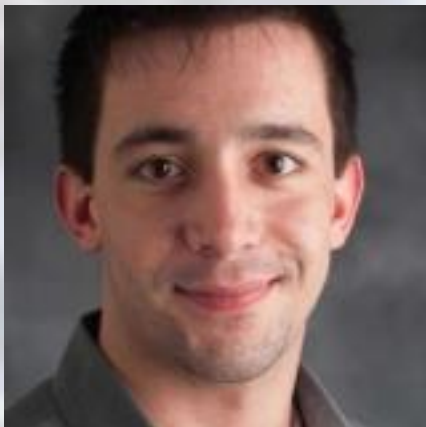
Peer Mentors

Nicky Ishaak - 4A

Gladys Chen - 4B

# Project 5: Large Language Models for Science

## Project Leads



**Sam Foreman**

## Peer Mentors



**Rene Montelongo**

Group 5
Bhumi Choudhary
Fadzai Zivanai
Fatima Mora Garcia
Jason Griffith
Adam Trojak
Yumna Hussain
Peer Mentors
Renee Montelongo - 5



# Project 6: Evaluating Large Language Models for HPC Education

## Project Leads



**Murat Keceli**

Group 6A	Group 6B
Kevin Tchoffa	Milagros Mendez
Keegan Krawczyk	Sadhana Jamkatel
Michael Manriquez	Utkarsh Rai
Maria Jaiyeola	XUEJUN SWENSON
Leena Nawaz	Bret Alan Porter
Peer Mentors	
Alexis Anderson - 6A	Samira Begum - 6B

## Peer Mentors



**Samira Begum**



**Oluwaseun Ajayi**



**Alexis Anderson**



# Project 7: Computational Design of Low-Cost/High-Efficiency Solar Cells

## Project Leads



**Alvaro Vasquez-Mayagoitia**

## Peer Mentors



**Ashton Cartwright**

Group 7
Amelia Mikos
Mohammad Altiwainy
Patricia Ladipo
Sophia Johnson
Terry Nguyen
Peer Mentors
Ashton Cartwright 7

# Project Breakout Room Assignments

- Project 1a and 1b: D L203
- Project 2a and 2b: D L204
- Project 3a and 3b: D L105
- Project 4a and 4b: D L107
- Project 5: D L205
- Project 6a and 6b: St Charles Ballroom 7
- Project 7: D L109