

# Accounts and Allocations



New User Training  
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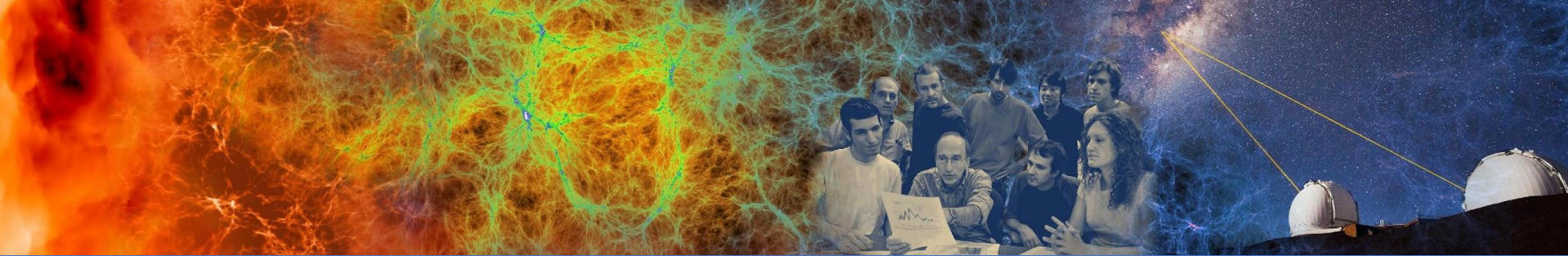
# Agenda

- Account Types
- User Accounts
- Allocation Accounts

# Accounts vs. Allocations

## There are two types of *accounts* at NERSC:

- Your personal, private, user account
  - Associated with your *login* or *username*
  - Provides *authentication* (personal identity) and *authorization* (which resources are accessible)
  - You can request an account on your own or your project's Principal Investigator (PI) or Project Manager can send you a link to request an account
  - Five primary account *roles*
    - PI, PI Proxy, Project Membership Manager, Project Resource Manager, and User
- A Project allocation account, or *project*
  - Like a bank account you use to “pay” for computer time and file storage
  - Managed by a Principal Investigator (PI) and (optionally) one or more Project Managers.
  - All NERSC users belong to at least one project
  - An individual user may belong to more than one project
    - But only one *default project*



# User Accounts



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# Requesting New Account - Reactivating Old Account

- New users can request a NERSC User account through the Iris Add User page
  - <https://iris.nersc.gov/add-user>
- Users who want to reactivate an old account that is currently deactivated can use the same page, but select the “I have a current NERSC account” option

# Account Policies

- **All users must sign an Acceptable Use Policy form**
  - This is incorporated into the Self-Service account request form  
<https://iris.nerisc.gov/aup>
- **Password policies**
  - Must change password every year (365 days)
  - **Do not share passwords**
  - **Do not email passwords**
- **Account locked after 5 consecutive login failures**
  - Login to Iris to clear login failures
  - If you have forgotten your password, there is a link on the Iris login page that will lead you through the process of resetting a password
  - Email NERSC Account Support for more help

# Password Rules

- **Requirements**

- The password must register as either 'safe' or 'very safe' on a password strength meter that is provided.
- There is no character complexity rule regarding inclusion of uppercase/lowercase letters, digits and special characters.

- **Good**

j#K01vz\$euP@!udls **OR** moocher-earflap-robin-overreach

- **Bad**

P@ssw0rd

- If you are struggling to come up with a good password, Iris can recommend one for you. Click on the 'Recommend a safe password' link beneath the 'New password' box in the 'Password reset' dialog window.



# Multi-Factor Authentication

- Provides an additional security layer to accessing NERSC
- Required for ALL users
- Generate a soft token
  - Link to a One-Time Password app/software
- Online instructions
  - <http://www.nersc.gov/users/connecting-to-nersc/mfa/>



# Generating a Token

Type	Serial	Description	Fail Count	Actions
		No rows found		

Add Token →

New Token

Description

Description


+ Add Token

Backup Passwords

Delete All Tokens

New MFA Token

OATH Seed | OTP Seed



Uri: otpauth://totp/NERSC-elvis-TOTP18941BFC?secret=[REDACTED]

Serial: TOTP18941BFC

Authy Code: [REDACTED]

Close

QR-Code for installing the OATH compatible Soft Tokens (FreeOTP, Google Authenticator and other apps using the 'otpauth://' syntax).

**This will be the only time you will be able to scan this code into your Google Authenticator (or similar app), or use the URL string.**

# Iris - Web Based Information Portal

- **Web-based tool for user and project management**
  - Check daily balance, change password, change login shell, update contact information, etc.
  - Manage Project membership and allocations
  - Run reports

<https://iris.nersc.gov>

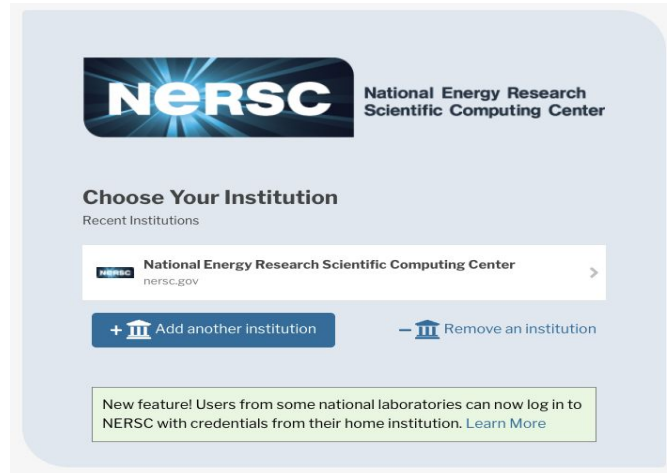
# Getting Help from the Iris Login Screen

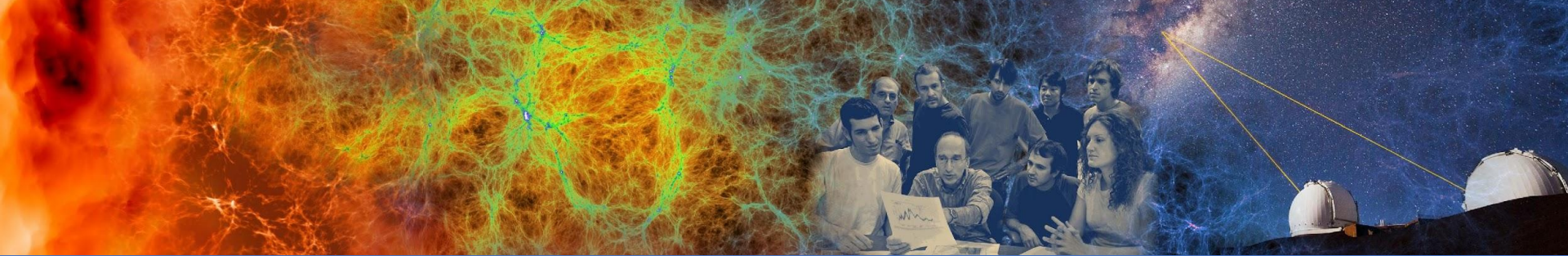


The screenshot shows the Iris login interface. At the top center is the Iris logo, a sunburst icon with the word "Iris" in blue. Below the logo is the text: "Management and reporting for your account, compute and storage allocations, and projects at NERSC." A blue "Login" button is centered below the text. Underneath the button are three red text links: "Password Help", "Username Help", and "MFA Help". At the bottom of the screen, a light gray bar contains three blue text links: "Forgot password?", "Forgot username?", and "MFA not working?". Each of these three links is enclosed in a red rectangular box.

# Federated Identity

- NERSC offers a Federated Identity option that allows you to log in with your current organization's credentials
  - Currently only available for some National Laboratories
  - <https://docs.nersc.gov/connect/federatedid/>





# Allocations



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# Allocations Process

- **PIs apply for resources through the *Energy Research Computing Allocations Process (ERCAP)***
  - Accessed through the NERSC Help Desk at
    - <https://ercap.nersc.gov>
  - Renew current projects annually, typically late summer
  - Science objectives, approach, and resource requirements
    - Computer time, Community and Archival storage space
  - Reviewed and awarded by DOE Office of Science programs
  - Most allocations are awarded in late Fall (December)
    - Allocation year starts in January
    - Small Exploratory allocations are awarded throughout the year with DOE approval

# Allocations Process - NERSC

- **Amount of Computing time available**
  - CPU Node hours: Approximately 19.74 million for AY23
  - GPU Node hours: Approximately 9.3 million for AY23
  - 80% to “DOE Mission Science”
  - 10% to ASCR Leadership Computing Challenge (ALCC)
  - 10% to “Director’s Reserve”
    - Exploratory, Education, staff, etc.



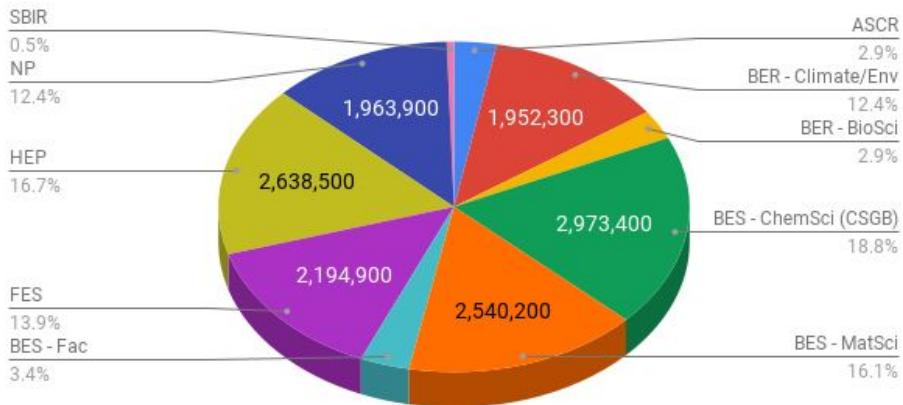
# Available CPU Time and Distribution

The CPU time available in AY 2023 for DOE Mission Science is ~15.79 Million CPU Node Hours

To help you size your request, we have published the total allocation available for each Office of Science area at

<https://bit.ly/3bAsmzS>

AY2023 CPU Distribution by Program



# Available GPU Time and Distribution

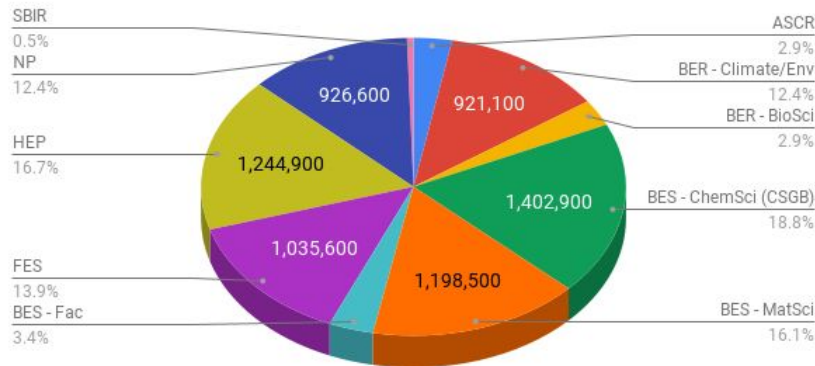
The amount of GPU time available in AY 2023 for DOE Mission Science will be ~7.45 Million **GPU Node Hours**

To help you size your request, we have published the total allocation available for each Office of Science area at

<https://bit.ly/3bAsmzS>

Check <https://docs.nersc.gov/applications/> to see if your software application will be installed for Perlmutter GPU nodes or is known to have a GPU version available

AY2023 GPU Distribution by Program



# Running Out of Time

## ● User

- PI determines how much of the project's computing allocation each user can use:
  - Either as a % of Total allocation or a fixed # of hours
- If user runs out of time
  - Submitted jobs go into the overrun queue if project cannot pay for job
  - Contact PI to increase percentage or # of hours

## ● Project

- If project runs out of time, PI should contact appropriate DOE Office of Science Program Allocations Manager
  - Each Program typically holds a certain amount of time in reserve
- Any jobs submitted will run in the overrun (low priority) queue

# Resources

- **Self Help**

<https://ercap.nersc.gov>

<https://iris.nersc.gov>

<https://iris.nersc.gov/add-user>

<http://www.nersc.gov/users/accounts/>

<http://www.nersc.gov/users/accounts/allocations/>

<http://www.nersc.gov/users/accounts/user-accounts/>

<http://www.nersc.gov/users/accounts/user-accounts/how-usage-is-charged>

<http://www.nersc.gov/users/connecting-to-nersc/mfa/>

<https://docs.nersc.gov/connect/federatedid/>

<https://docs.nersc.gov/filesystems/archive/#hpss-usage-charging>

# Resources cont.

- **NERSC Account Support**
  - <http://help.nersc.gov>
  - [accounts@nersc.gov](mailto:accounts@nersc.gov)
  
- **NERSC Allocation Support**
  - <http://help.nersc.gov>
  - [allocations@nersc.gov](mailto:allocations@nersc.gov)

Thank You and  
Welcome to  
NERSC!

