

Accounts and Allocations



New User Training
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Clayton Bagwell
Business Operations & Support Group
NERSC Account and Allocation Support

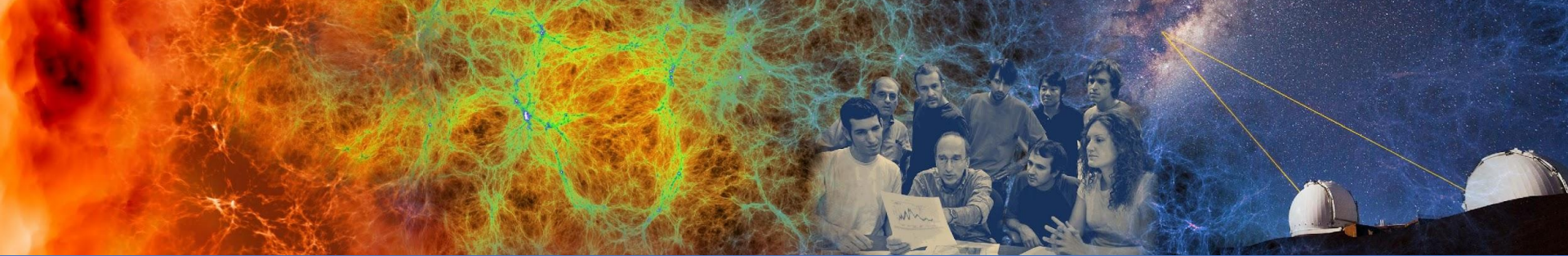
Agenda

- 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 usage
 - 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

Requesting New Account - cont.

- Account requests must first complete a DOE mandated vetting process
 - This can take as long as a full week or more
- Once vetting has completed, the account request must be approved by the PI or PI Proxy of the project
- When the request is approved, the user will be notified via email

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=

Serial: TOTP18941BFC

Authy Code:

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>

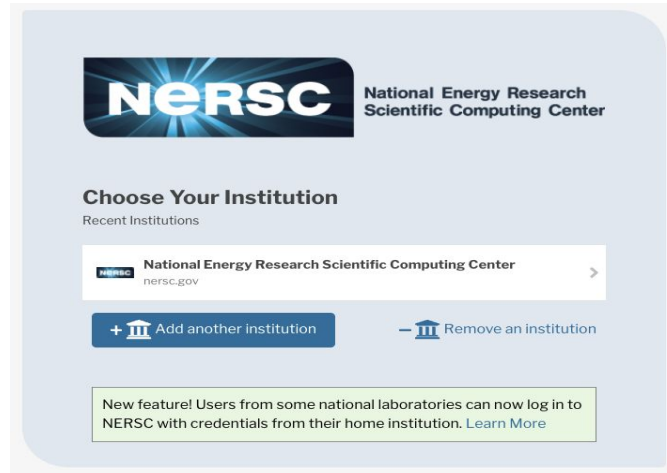
Getting Help from the Iris Login Screen

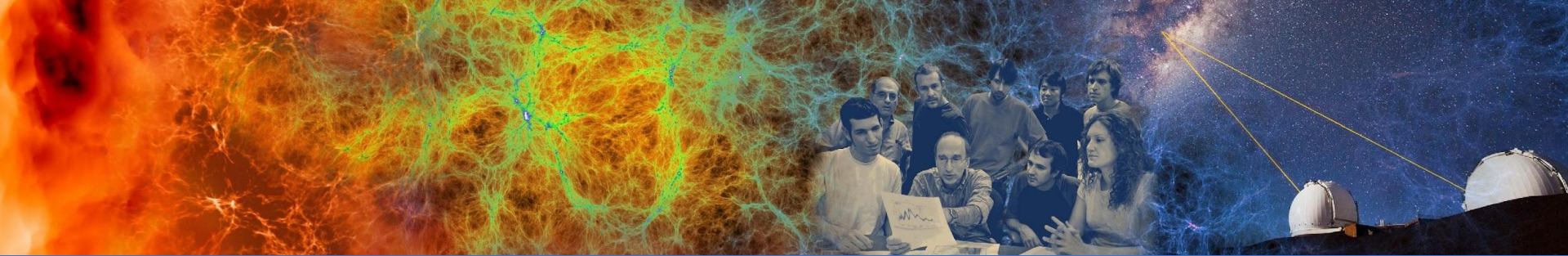


The screenshot shows the Iris login interface. At the top center is the Iris logo, a sunburst icon with the word "Iris" in blue. Below the logo is the text: "Management and reporting for your account, compute and storage allocations, and projects at NERSC." A blue "Login" button is centered below the 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 22.49 million for AY24
 - GPU Node hours: Approximately 12.29 million for AY24
 - 80% to “DOE Mission Science”
 - 10% to ASCR Leadership Computing Challenge (ALCC)
 - 10% to “Director’s Reserve”
 - Exploratory, Education, staff, etc.

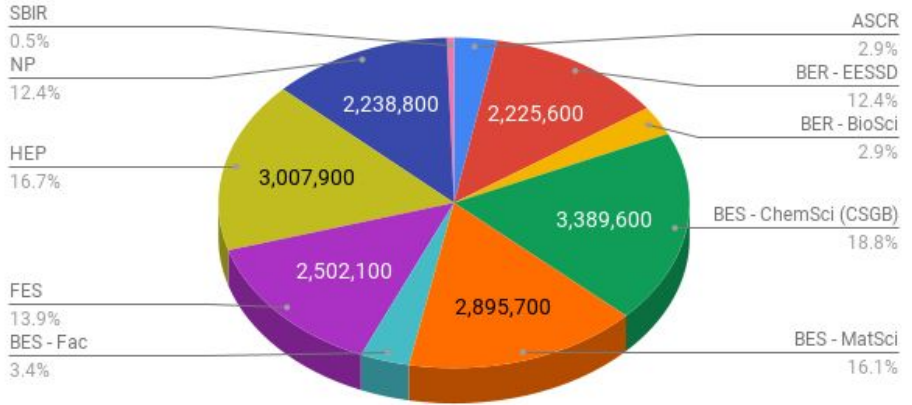
Available CPU Time and Distribution

The CPU time available in AY 2024 for DOE Mission Science is ~22.49 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/30PlpdC>

AY2024 CPU Distribution by Program



Available GPU Time and Distribution

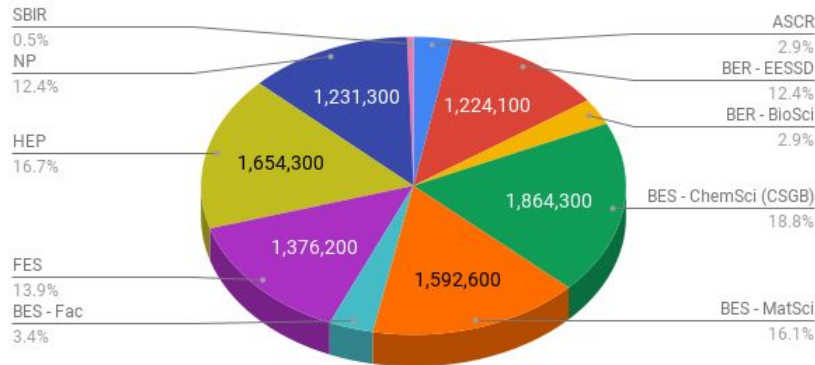
The amount of GPU time available in AY 2024 for DOE Mission Science will be ~12.29 Million **GPU Node Hours**

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

<https://bit.ly/30PlpdC>

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

AY2024 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

- **NERSC Allocation Support**
 - <http://help.nersc.gov>
 - allocations@nersc.gov

Thank You and
Welcome to
NERSC!

