

## Galaxy Overview The Basics

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**UF** Research Computing  
Information Technology  
Home of High-Performance Computing and *HiPerGator*

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## UF Research Computing

**UF** Research Computing  
Information Technology  
Home of High-Performance Computing and *HiPerGator*

- ▶ Mission
  - Improve opportunities for research and scholarship
  - Improve competitiveness in securing external funding
  - Provide high-performance computing resources **and support** to UF researchers

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**UF RISING**  
to National Preeminence

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## HiPerGator

The University of Florida Supercomputer for Research

- 16,384 cores—total of about 21,000 cores today
- Infiniband interconnect
- >3PB fast, high-availability, storage
- **GPGPUs**
- Large memory (**512GB to 1TB of RAM**) nodes




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## Approaches



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UNIVERSITY OF FLORIDA | High-Performance Computing



## HiPerGator


The University of Florida Supercomputer for Research

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## Cluster basics

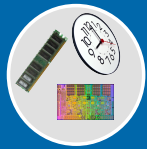
User interaction

**Galaxy**




Login node (Head node)

Scheduler



Tell the scheduler what you want to do


Compute resources



Your job runs on the cluster

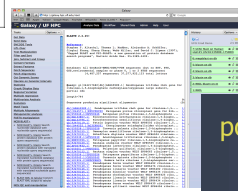
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## What is Galaxy?



**Galaxy Provides Life Support for NGS Exploration**

BONUS EDITION: Open Source





powered by **Galaxy**

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## Galaxy: Data intensive biology for everyone

- ▶ Accessible, reproducible, transparent computational biology
- ▶ galaxy.hpc.ufl.edu
  - Local instance of Galaxy
    - Faster access to storage, easier upload
    - Local compute resources
    - Local control

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## Galaxy demo

<http://galaxy.rc.ufl.edu>



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## UF Research Computing

- ▶ Help and Support
  - Help Request Tickets
    - <https://support.rc.ufl.edu>
    - For any kind of question or help requests
  - <http://wiki.rc.ufl.edu>
    - Documents on hardware and software resources
    - Various user guides
    - Many sample submission scripts
  - <http://rc.ufl.edu>
    - Frequently Asked Questions
    - Account set up and maintenance



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