

Galaxy Overview The Basics

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3/12/15



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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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UFRISING
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



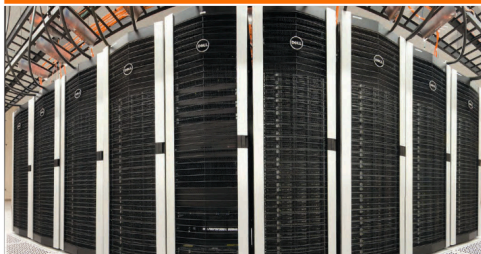
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Approaches



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UNIVERSITY OF FLORIDA | High-Performance Computing



HiPerGator


The University of Florida Supercomputer for Research

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Cluster basics

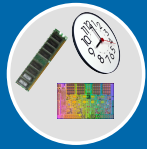
User interaction

Galaxy




Login node
(Head node)

Scheduler



Tell the scheduler what you want to do

Compute resources



Your job runs on the cluster

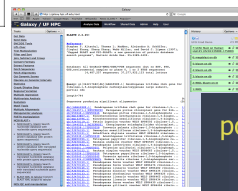
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What is Galaxy?

BioIT World

Galaxy Provides Life Support for NGS Exploration

BONUS CONTENT: Open Source





powered by **Galaxy**

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Galaxy: Data intensive biology for everyone

- ▶ Accessible, reproducible, transparent computational biology
- ▶ galaxy.rc.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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- ▶ Help and Support
 - <https://my.it.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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