



HiPerGator 3.0



- HiPerGator evolution

- HiPerGator 1.0 – 2013-2021 – 16,000 AMD cores – 4 GB RAM/core
- HiPerGator 2.0 – 2015 – 30,000 Intel cores – 4 GB RAM/core
- HiPerGator 3.0
 - Dec 2019 – 608 new Nvidia RTX 2080ti and RTX 6000 GPUs
 - July 2020 – 4 PetaByte new “blue” fast storage
 - Jan 2021 – 30,720 AMD EPYC “Rome” 2.0 GHz cores – 8 GB RAM/core
 - Mar 2021 – retire 16,000 cores of HiPerGator 1.0
 - May 2021 – 9,600 AMD EPYC “Milan” cores – 8 GB RAM/core
- Total core count 70,320 cores



• Performance

- Double precision Linpack (HPL)
- 17.2 Petaflops = M x 1 B ops/sec
- AI floating peak point operations
- 0.7 Exaflops = B x 1 B ops/sec



• NVIDIA DGX A100 SuperPOD

- 140 Nvidia DGX A100 nodes
- 17,920 AMD 7742 2.25 GHz “Rome” cores w. 8 GB RAM per core
- 1,120 Nvidia “Ampere” A100 GPUs
- 2.5 PetaByte all-flash DDN A3I AI400 storage
- 250 InfiniBand and Ethernet Mellanox switches



How to get started?

- Intro page <https://www.rc.ufl.edu/artificial-intelligence/>
- For education use in courses
 - Contact UFIT Research Computing to set up an allocation for a semester
 - RC staff provides training in class
 - TAs respond to student problems, RC staff handles system problems
- For learning the system and for preparing course materials
- For research use:
 - Principal investigator investments
 - For faculty and collaborators
 - College or department investments
 - For all faculty in the unit
- Start with free 3-month trial allocation <https://www.rc.ufl.edu/access/request-trial-allocation/>



How does it work?

- Allocations are called “investments”
 - Configure a virtual “cluster” with
 - A number CPU cores with 8 GB RAM/core
 - A number of TB of storage
 - Blue → high performance, for running jobs
 - Orange → good performance, for keeping data accessible
 - Red → super performance for HiPerGator AI scratch
 - A number of GPU cards
 - Duration – multiples of 3 or 6 months for “service/lease”
 - Rates – <https://www.rc.ufl.edu/services/rates/>
 - Purchase form – <https://www.rc.ufl.edu/access/purchase-request/>



Information: news, events, training, support, consulting, ...

- UFIT Research Computing infrastructure
<https://www.rc.ufl.edu/artificial-intelligence/>
- UF: the AI University – <https://ai.ufl.edu>