

- **Scope**

- cosmo/astro simulations (galaxies, SN)
- Observational data analysis (optical, Xray)
- Experimental simulations (lsst, DES)

- **Who what where?**

- Head count, groupings, slac & stanford

- **Hardware**

- Orange cluster, regular batch, and ??

- **Software and Services**

- Rely upon CD HPC team heavily, liaison is Yemi, also have 0.6 FTE on campus

- **Demos**

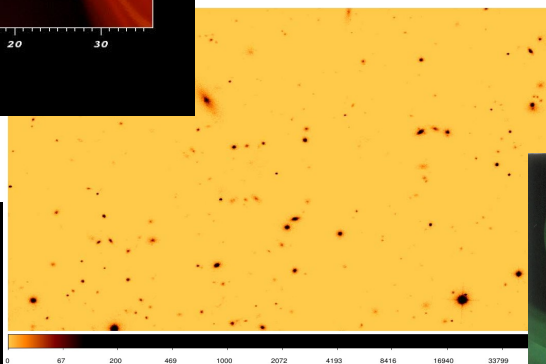
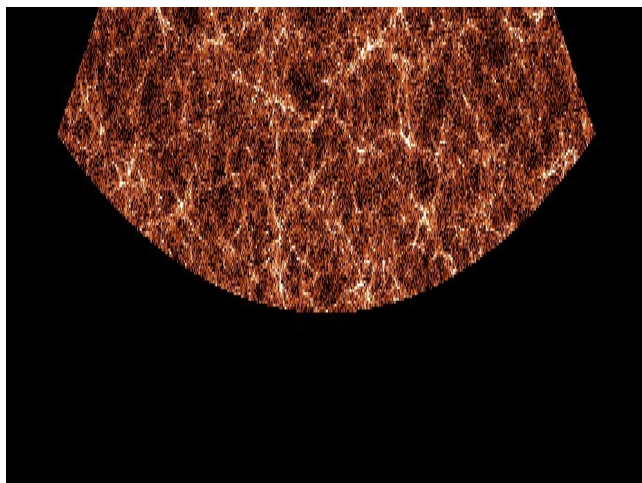
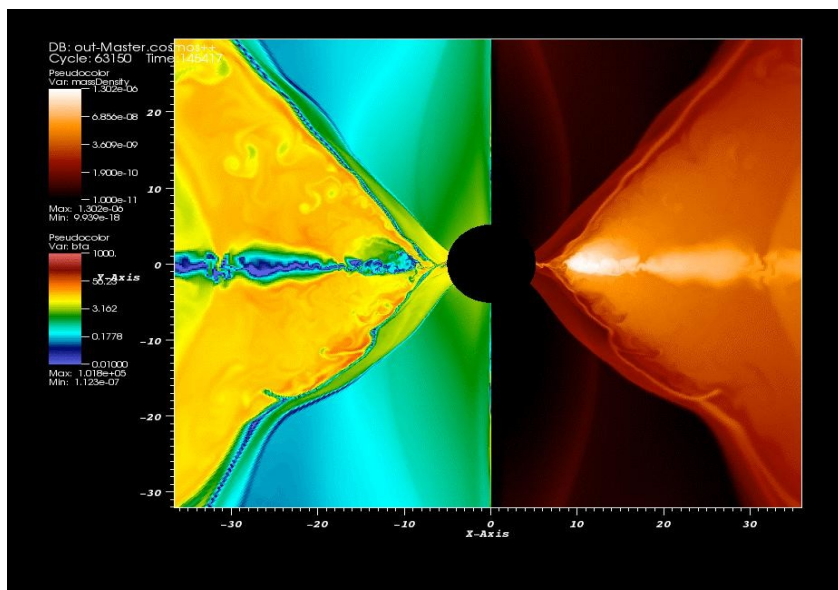
- Collaboration website
- Ganglia monitoring

Overview

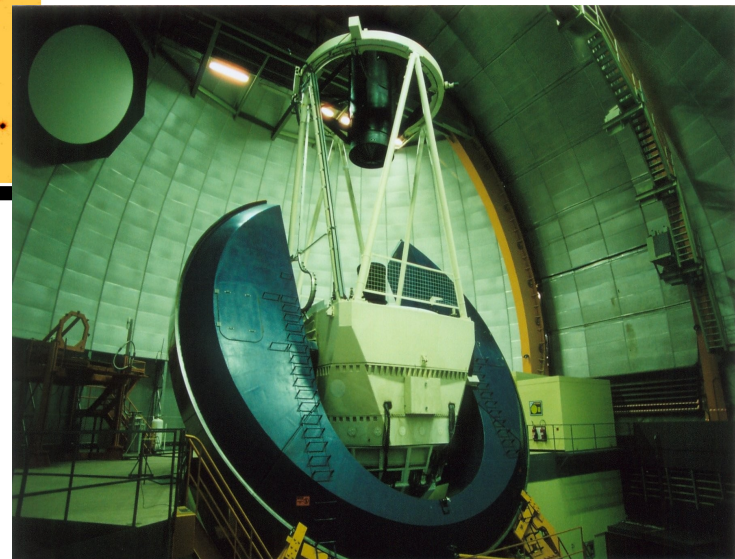


- **KIPAC spans SLAC, SU Campus & offsite**
- **~150 accounts**
- **~10 groups/projects:**
 - Tom Abel
 - Steve Allen
 - Risa Wechsler
 - Sarah Church and Chao-Lin Kuo
 - Blandford
 - LSST
 - DES
 - Fermi
 - CDMS
 - Kamae and collaborators
- **Computing mostly at SLAC (for now)**
- **Documentation and other stuff on collab web site**

Wide variety of Computation



0 67 200 469 1000 2072 4193 8416 16840 33796



Hardware: User



- ~45 taylorized linux workstations
- ~20 windows desktops
- ~10 OS X desktops (non-taylorized now but taylor option)
- many laptops, mostly self managed

Hardware: Server



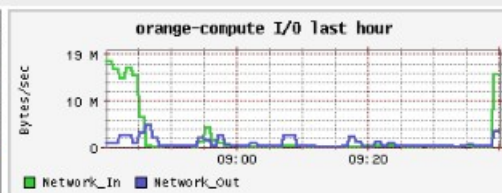
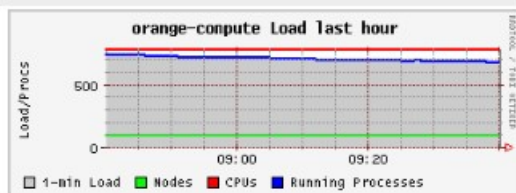
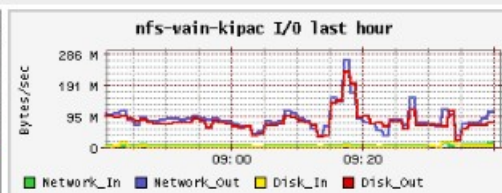
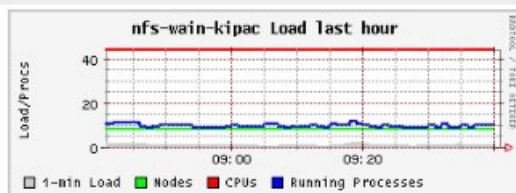
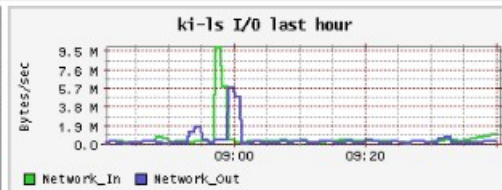
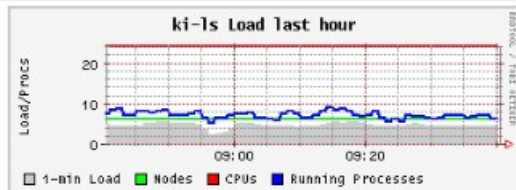
- 8 thumper/thors hosting ~220 TB NFS space (solaris/ZFS)
- 2 older NFS servers (solaris/UFS?)
- orange cluster
 - 1 head node Sun X2200
 - 96 compute nodes (8core/32GBmem Sun X2200)
 - 4 GPGPU nodes, 1920 gpu cores (Supermicro w/nvidia)
 - 32c X4600 SMP w/256GB memory
 - 42 TB lustre filesystem (8 RAID6 Sun 6140's in parallel)
 - DDR Infiniband interconnect (50% blocking tree topology)
- coma cluster (20 nodes of older Sun's)
- 6 Sun X2200's for interactive use (like noric)
- 1 Sun X4240 in KIPAC server room
- 1 Sun X2200 in KIPAC server room
- 2 Sun Ultra40's for visualization

- ~100 packages in /afs/slac/g/ki/software/<pkg>
- Largely maintained by Glenn Morris
- Collaboration web site: Plone
- Mailing lists based on campus (mailman)
- automated sys-admin via taylor
- hardware monitoring: ganglia, ranger, nagios, smartd, cam
- tape backups of NFS space via TSM
- tape archival services (ASTORE/MSTORE)
- LSF queues on orange cluster
- software license servers: mathematica, idl
- Staff:
 - Glenn Morris
 - Jeff Wade
 - Ralf Kaehler
 - Yemi Adesayna

Monitoring: Ganglia etc.



•



Collaboration Website



Kavli Institute for Particle Astrophysics and Cosmology

[site map](#) | [accessibility](#) | [contact](#) | [site setup](#)

Search Site

☐ only in current section

Stuart Marshall [preferences](#) [log out](#) [my folder](#)

you are here: home

navigation

- Home
- Events & Seminars
- Research
- Computing Info
- Student Research Opportunities
- Useful Links
- General KIPAC Information
- KIPAC SLAC
- Outreach

[contents](#)

[view](#)

[edit](#)

[history](#)

[rules](#)

[sharing](#)

[display](#) ▼

[add new...](#) ▼

[state: published](#) ▼

Welcome to the KIPAC Collaboration Space

by stuart.marshall — last modified Apr 14, 2010 10:17 AM

This site is intended to be used collaboratively by KIPAC members and groups to host documents, discussion, calendars, etc.

To access the contents of this site you must first join by contacting Stuart Marshall. Once your membership is confirmed, you will be able to access existing content and add new documents, events, discussions, etc.

This site is run by the Plone Content Management System. For more information on Plone visit the [Plone website](#)

For more information on KIPAC visit the [official website](#)

« may 2010 »

Mo	Tu	We	Th	Fr	Sa	Su
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

upcoming events

SciDAC Computational Astrophysics Consortium Meeting

May 19, 2010

~~Marshall's Folly~~ Cray XT3



Cray XT3 from surplus:

- 1024C
- 3 TB mem
- Cstar net
- DDN FS
- Major infrastrucure required!

