New Postdoc Orientation

September 24, 2014
New Postdoc Orientation

- Welcome to the KICP!
- Who are we?
Personnel

• Introductions
  – Michael Turner (Director)
  – John Carlstrom (Deputy Director)
  – Daniel Holz (co-Leader of the Fellows MA)
  – Erik Shirokoff (co-Leader of the Fellows MA)
  – Ted Ressell (Assistant Director)
  – Helen Pates (Business Manager)
  – Aimee Giles (Travel & Symposium Event Coordinator)
Personnel

– Valeri Galtsev (Sr. System Administrator)
– Elena Galtseva (Web Developer)
– Douglas Rudd (HPC Consultant)
– Randall Landsberg (Director of EO&D)
Personnel

• A few other people you will meet:
  – Bernice Williams (Assistant to the Director)
  – Val Smith (Assistant to John Carlstrom/SPT)
  – Mary Wawro (Financial Administrator)
  – Jess Valle (Facilities Manager) (not in LASR)
  • 4-7559
Education Outreach & Diversity and the Fellows

Randy Landsberg
Director of Education & Outreach - KICP
sharing

Museums

K-12 Students

New Media

Partnerships

Google

Adobe

SAIC
School of the Art Institute of Chicago

Kavli Institute for Cosmological Physics

World Science Festival
take home

• do it well
• many opportunities
  - many flavors and sizes
  - many partners
• help exists

• new ideas
• THINK BIG
  - but small and concrete too

The National Science Foundation
AAPF-Fellows
In 2011, a new Physics Frontier Center grant was awarded to the KICP, including Computational Cosmology as a “major activity.” At the same time, the University of Chicago formed the Research Computing Center to bring centrally managed computational resources and support to campus.

The KICP partnered with RCC to provide computing hardware, support and training to its members.
Midway general purpose cluster

- Over 500 compute nodes, 10,000+ cores (Top500 supercomputer)
  - 2x8 core 2.6GHz Sandy Bridge Processors
  - 32GB memory
  - Fast Infiniband network

- Special purpose hardware
  - Large shared-memory nodes (256GB & 1TB ram)
  - GPU and PHI accelerator nodes
  - Hadoop distributed map/reduce cluster
  - Zar 3-d visualization lab

- High performance storage
  - Backed up remotely to tape daily
  - Snapshots hourly, daily, weekly
  - Accessible via scp, Globus, smb mount

- Available to all UChicago researchers (PI elig.)
KICP Midway partner cluster
managed as an island within the larger cluster

- 31 infiniband nodes - useful for large distributed or I/O intensive tasks
- 4 ethernet nodes - reserved for serial or low-I/O tasks (e.g., MCMC)
- 50TB of capacity storage
  - 1TB quota per user, ask if you need more
  - 5TB scratch space per user (short term only!)
- Astronomy specific software libraries and tools (healpix, cosmomo, YT, python libs)
- You have access today using your cnetid: ssh [cnetid]@midway.rcc.uchicago.edu
Scientific Computing Consultant

my job is to …

• Maintain KICP Midway software environment, tools, and documentation

• Provide general computing advice
  – workflows and data management
  – Code development and design
  – debugging, parallelization, and optimization
  – visualization and analysis

• Help educate KICP members in HPC
  – Tutorials on MPI, OpenMP, Python, etc
  – RCC workshop schedule
    http://rcc.uchicago.edu/services/training.html

Available most Mondays and Fridays in LASR, come by anytime, or email to schedule meeting
Jamboree

• This Monday, 2:30 – 4:00
  – Don’t forget to prepare your 1 slide and 60 second presentation and send it to Ted, today!

• Welcome BBQ to follow 4:00 – 6:00
  – Families welcome
Mentoring

• **Mentoring Program**
  – All Fellows receive a Mentor
    • Should meet 2-4 times per year
    • Not a likely research partner
  – Associate Fellows: Your research supervisor is your mentor
  – Brief Annual report due each year
  – Mentoring is a unique opportunity, take advantage of it!
Career Assistance

• Fellows Career Forum
  – Informal discussions on topics relevant to Postdocs
  – Always looking for topic suggestions

• Broader Horizon lectures
Fellows Career Forum

• We need topics and encourage suggestions!
• Ideas from the proposal:
  – Strategies for applying for jobs
  – Dealing with the Press
  – Career opportunities within and beyond academia
    • Look for Broader Horizon Lectures
  – Writing Grant Proposals
Fellows Career Forum

- Options for dual-career partners
- Balancing family and career
- Mentoring students
- Skill development (e.g. Python tutorial)

• Frequency
  - Once, occasionally twice, a quarter
Friday Seminars

• Friday Seminar Committee
  – Run by 2\textsuperscript{nd} year Fellows
  – Organize Postdoc Symposia
  – 1\textsuperscript{st} year Fellows keep an eye on what the current committee is doing to make it easy on yourselves!
Group Meetings

• There are many research group meetings occurring every week.

• All new Fellows are encouraged to attend a variety of these in their first few months here to get a taste for all of the activities occurring at the KICP.

• Current Schedule:
# Group Meetings

<table>
<thead>
<tr>
<th>Group or Group Leader</th>
<th>Day</th>
<th>Start Time</th>
<th>End Time</th>
<th>Room</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relativity/Daniel Holz</td>
<td>Monday</td>
<td>Noon</td>
<td>1:00</td>
<td>ACC 211</td>
</tr>
<tr>
<td>Carlstrom/SPT</td>
<td>Wednesday</td>
<td>10:00</td>
<td>Noon</td>
<td>LASR</td>
</tr>
<tr>
<td>VERITAS</td>
<td>Wednesday</td>
<td>1:00</td>
<td>3:00</td>
<td>LASR</td>
</tr>
<tr>
<td>Scott Dodelson/Dan Hooper</td>
<td>Friday</td>
<td>10:45</td>
<td>Noon</td>
<td>LASR</td>
</tr>
<tr>
<td>Joint DES-SPT Meeting</td>
<td>Friday</td>
<td>2:00</td>
<td>3:00</td>
<td>LASR</td>
</tr>
<tr>
<td>Andrey Kravtsov</td>
<td>Friday</td>
<td>3:00</td>
<td>5:00</td>
<td>LASR</td>
</tr>
<tr>
<td>Wayne Hu</td>
<td>Monday</td>
<td>10:30</td>
<td>Noon</td>
<td>Schramm Lounge</td>
</tr>
<tr>
<td>Scott Wakely</td>
<td>Monday</td>
<td>1:00</td>
<td>2:30</td>
<td>Schramm Lounge</td>
</tr>
<tr>
<td>Paolo Privitera</td>
<td>Wednesday</td>
<td>2:00</td>
<td>3:30</td>
<td>Schramm Lounge</td>
</tr>
<tr>
<td>Abigail Vieregg</td>
<td>Thursday</td>
<td>3:00</td>
<td>4:00</td>
<td>Schramm Lounge</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Other Weekly events</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>KICP Cookies and Discussion</td>
<td>Tuesday</td>
<td>3:00</td>
<td>4:00</td>
<td>LASR</td>
</tr>
<tr>
<td>KICP or Astronomy Colloquium</td>
<td>Wednesday</td>
<td>3:00</td>
<td>4:00</td>
<td>BSLC</td>
</tr>
<tr>
<td>After Colloquium Wine and Cheese</td>
<td>Wednesday</td>
<td>4:00</td>
<td>5:00</td>
<td>LASR</td>
</tr>
<tr>
<td>KICP Thunch</td>
<td>Thursday</td>
<td>Noon</td>
<td>1:00</td>
<td>LASR</td>
</tr>
<tr>
<td>Physics Colloquium</td>
<td>Thursday</td>
<td>4:15</td>
<td>5:15</td>
<td>KPTC 106</td>
</tr>
<tr>
<td>KICP Friday Seminar</td>
<td>Friday</td>
<td>Noon</td>
<td>1:00</td>
<td>LASR</td>
</tr>
</tbody>
</table>
Meetings

• **Workshops**
  – The KICP likes to host one or more workshops each year.
  – We actively encourage Fellows to suggest and organize these workshops, don’t be shy!

• **At some point you’ll be asked to participate in the quarterly Postdoc Symposium; a great chance to describe your work**
Jobs

- While not as all encompassing as we would like, please be aware of the job postings on our website. This could be the only place certain positions are advertised:
- KICP > For the Community > External Job Announcements
- http://kicp.uchicago.edu/community/job/
Emergencies

• 911

• University
  – 123 (Works from Campus Phones)
  – 702.8181 (off-campus phone)

• Facilities: 773.834.1414 (24 hours)
Thanks for coming!