

### Mission

- Help produce high quality, cutting edge research  $\bullet$ examining the visual brain.
- Facilitate interactions among investigators through  $\bullet$ a regularly scheduled "methods" workshop, development and centered around the implementation of state-of-the-art methods for analysis of brain data.
- Help investigators overcome common barriers to  $\bullet$ performing high quality vision research by helping to develop methods for computing them strategies, storage, and back up for large data sets required by neuroimaging studies.
- Provide forums to discuss new ideas and research techniques.

### Seminar Series

Visual Brain Core organizes a monthly seminar series on the first Friday of each month at 3 30 PM, in CIRC 120 to discuss new ideas and research techniques related to imaging.

To bring expertise to UAB from other institutes, speakers are pioneers in their fields.

Seminars are followed by social time. This time is essential for discussing the ideas delivered by the speaker, brain storming, networking, building collaborations within the imaging community.

The topics and the speakers for these seminar series are selected through a voting system from our users, and depend on the research community interest. Our seminars are shared, through internet with neuroimaging colleagues at Auburn University as part of the Alabama Advanced Imaging Consortium. Some seminars are in person, while others involve interacting through video chat.

Examples of previous topics and speakers include:

- "Resting State Functional Connectivity: Methods, Databases and Clinical Applications" Susan Gabrieli, PhD, MIT.
- "Research Computing, Storage and Networks" Curtis Carver, PhD, VP of IT at UAB.
- "13C MRS Studies of Brain Metabolism of Alcohol and Acetate" by Graeme Mason, PhD, Yale School of Medicine.
- "High Gradient Diffusion MRI from the Human Connectome Project" Koene Van Dijk, PhD, Harvard Medical School.
- "Psychophysical Interactions (gPPI): What are they and What they can tell us" Donald McLaren, Phd, Harvard Medical School.





3 🔊 🗙 🔊 🛽

✓ Amygd... 25

✓ Cingulu... 104 0

Conn toolbox

# **VISUAL BRAIN CORE**

# **Computing Resources**

UAB IT Research Computing maintains high performance compute and storage resources for investigators. The Cheaha compute cluster provides 1968 conventional CPU cores across five generations of hardware that provide over 50 TFLOP/s of combined computational performance, and 16 TB of system memory interconnected via an Infiniband network.



Generation	Туре	Nodes	CPUs per Node	Cores Per CPU	Total Cores	Clock Speed (GHz)	Instructions Per Cycle
Gen 2	Intel Xeon E5450	24	2	4	192	3.00	2
Gen 3	Intel Xeon X5650	48	2	6	576	2.66	2
Gen 4	Intel Xeon E5-2680	3	2	8	48	2.70	٤
Gen 5	Intel Xeon E5-2650	12	2	8	192	2.00	٤
Gen 6	Intel Xeon E5-2680 v3	40	2	12	960	2.50	16

Total TF

HPC with over 100 servers

# **Office Hours**

### Location: Civitan International Research Center, Room 235C

Hours: Tuesday, 2:00 -5:00 pm, Thursday, 9:00 am-12:00 pm

### **Personnel:**

Kristina Visscher	Jo
Assistant Professor, Neurobiology	Re
<u>kmv@uab.edu</u>	Re
(205) 934-0267	jpi
Cynthia Owsley	M
Professor, Ophthalmology	As
<u>owsley@uab.edu</u>	Ra
205-325-8635	<u>m</u>









	2.304
	6.129
	1.036
	3.072
	38.40
LOPS	50.94



ohn-Paul Robinson esearch System Architect esearch Computing <u>r@uab.edu</u>

1ark Bolding ssistant Professor adiology nbolding@uab.edu Demet Gurler **Research Associate** Radiology demet@uab.edu

Ravi Tripathi Software Developer Research Computing ravi89@uab.edu