High Performance Computing Across Texas

- HPC systems, Clusters, and advanced visualization
- Grids and Massive data storage
- Scientific Computing and Projects

- **Director**: Phil Smith, TTU

- **Associate Director**: Jae Yu, UT Arlington

Members	•Rice University
•Texas A&M University	•Texas Tech University
•University of Houston	•University of Texas at Austin
•University of Texas Southwestern Medical Center	•University of Texas at El Paso
•University of Texas at Arlington	•Baylor College of Medicine
•University of Texas Health Sciences Center San Antonio	

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Purpose

- Information exchange at monthly meetings
- Project identification and support
  - Not all HiPCAT members must participate in a given project
  - Projects may (but need not) apply for external funding

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Hipcat Projects

- TIGRE
  - Texas Internet Grid for Research and Education
- THEGrid
  - Texas High Energy Grid (Physics)
- CDLT
  - Collaborative and Distance Learning Technology

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TIGRE

- Two year construction project involving: Rice, TAMU, TTU, UH, and UT.

- Funding began in May 2005. Project funds 2 FTE people at each of the above institutions.

- TIGRE will develop a grid software stack and policies and procedures to facilitate Texas grid computing efforts.

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TIGRE Targeted Applications

- Three areas of focus: Biomedicine, Energy Exploration, Atmospheric/Climate Modeling.
- These areas are targeted in order to provide specific topics of focus to develop the grid.
- TIGRE will also be open to and support other "grid-ready" apps.

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THEGrid

- Formed in 2004 to be a user group for TIGRE involving UT Arlington, TTU, TAMU, Rice, UH.
- Intended to provide a model for domain-specific virtual organizations using grids in Texas.
- Several workshops held.
- Currently awaiting completion of TIGRE.

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Other Hipcat/TIGRE Apps

- Some Apps are bandwidth intensive
  - Real Time Visualization
- Some Apps are compute intensive
  - Computational Chemistry and Cryptography
- Some are both
  - Genomics and Physics

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HiPCAT and DOSAR

- HiPCAT intends to be a general forum for communication and discussion on high performance computing topics in Texas.

- We are open to and supportive of the DOSAR goals and to working with you as needed.

- Please let us know how we can help!

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