

Go to the project page for information on the projects.

Links and Resources

Latex

Here are some nice video tutorials on using Latex to write papers.

- Latex tutorial (video) (<http://www.youtube.com/playlist?list=PLCRFsOKSM7ePUBOfh3O-K5XZldM5uCPwk>)
- How to write a thesis in Latex (video) (<http://www.youtube.com/playlist?list=PLCRFsOKSM7eNGNghvT6QdzsDYwSTZxqjC>)
- Presentations with Beamer (video) (<http://www.youtube.com/playlist?list=PLCRFsOKSM7eO-WX2ENa5A5vtNx1kjPefY>)
- TikZ examples (video) (<http://www.youtube.com/playlist?list=PLCRFsOKSM7eN6jPk0wSopXb37RKW93PM3>) , for drawing diagrams with lines, circles, ellipses, etc.

Smith Elements of Style

- "Writing Papers" from the Smith College Jacobson Center for writing

On-Line Resources

- Introduction to Parallel Processing (https://computing.llnl.gov/tutorials/parallel_comp/) , by Blaise Barney, Lawrence Livermore National Laboratory. A good read. Covers most of the important topics.

MPI

- Introduction to MPI (<https://computing.llnl.gov/tutorials/mpi/>) , by Blaise Barney, Lawrence Livermore National Laboratory. Another short but excellent coverage of a topic in parallel processing, this time MPI.

Hadoop

- Thiebaut's class notes

Microprocessors

- A 90-Minute Guide to Modern Microprocessors (<http://www.lighthouse.com/papers/modernmicroprocessors/>)

Papers

This is a tentative and non exhaustive list of papers scheduled for reading this semester.

Introduction

students

Paper	Pages
■ The Landscape of Parallel Computing Research: A View From Berkely (http://www.eecs.berkeley.edu/Pubs/TechRpts/2006/EECS-2006-183.pdf) , 2006, still good! (very long paper)	50
■ Update on a view from Berkeley, 2010. (short paper)	2

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General/Parallelism

Paper	Pages
■ Parallel Computing with Patterns and Frameworks, 2010, <i>XRDS</i> .	5 1
■ Understanding Throughput-Oriented Architectures, CACM, 2010.	7 1
■ The Unreasonable Effectiveness of Data, by Halevy, Norvig, Pereira, IEEE Intelligent Systems, IEEE Intelligent Systems, March 2009, Vol. 24, No. 2, pp. 8-12.	5 1
■ Top500 Versus Sustained Performance, by William Kramer, 21st International Conference On Parallel Architectures And Compilation Techniques (PACT12), 19-23 September 2012, Minneapolis, MN, US	8 1

MPI

Paper	Pages
■ Learning from the Success of MPI, by William D. Gropp, Argonne National Lab, 2002.	11 1

GPUs

Paper	Pages
■ General-Purpose vs. GPU: Comparisons of Many-Cores on Irregular Workloads, 2010	6 1

Virtualization

Paper	Pages
■ Server Virtualization Architecture and Implementation, <i>xrds</i> , 2009	5 1

Cloud

Paper	Pages
■ The NIST Definition of Cloud Computing (Draft) (very short paper)	1.5 <i>ready only</i>
■ A View of Cloud Computing, 2010, By Armbrust, Michael and Fox, Armando and Griffith, Rean and Joseph, Anthony D. and Katz, Randy and Konwinski, Andy and Lee, Gunho and Patterson, David and Rabkin, Ariel and Stoica, Ion and Zaharia, Matei.	9 1
■ MapReduce: SImplified Data Processing on Large Clusters, by Dean and Ghemawat, First published in OSDI 2004, also in Commun. ACM 51, 1 (January 2008), 107-113.	13 1
■ Nobody ever got fired for using Hadoop on a cluster, Rowstron, Antony and Narayanan, Dushyanth and Donnelly, Austin and O'Shea, Greg and Douglas, Andrew	5 } 1
■ Beyond Hadoop, Gregory Mone, CACM, 2013. (short paper).	2 }
■ Apache Spark: A Unified Engine for Big Data Processing, Zaharia Matei et al, CACM, Nov 2016, Vol. 59, No. 11. See also this page for video (http://cacm.acm.org/magazines/2016/11/209116-apache-spark/fulltext) .	10 1
■ Metz Cade, Microsoft bets future chips reprogram fly (https://www.wired.com/2016/09/microsoft-bets-future-chip-reprogram-fly/) , <i>Wired Magazine</i> , 9/25/16. (pdf) ■ Comments on Microsoft bets future paper	19 2 *
■ Processing Wikipedia Dumps: A Case-Study comparing the XGrid and MapReduce Approaches, D. Thiebaut, Yang Li, Diana Jaunzeikare, Alexandra Cheng, Ellysha Raelen Recto, Gillian Riggs, Xia Ting Zhao, Tonje Stolpestad, and Cam Le T Nguyen, in <i>proceedings of 1st Int'l Conf. On Cloud Computing and Services Science (CLOSER 2011)</i> , Noordwijkerhout, NL, May 2011. (longer version)	8 1
■ Can Cloud Computing Reach the Top500?, by Jeffrey Napper and Paolo Bientinesi, Proceeding of UCHPC-MAW '09 on UnConventional high performance computing workshop plus memory access workshop, Ischia, Italy — May 18 - 20, 2009.	4 1