

## References:

- [1] Y.B. Lee and C.S. Lui, "Automatic Recovery from Disk Failure in Continuous-Media Servers," *IEEE Trans. Parallel and Distr. Sys.*, vol.13, no. 5, pp. 499-515, 2002.
- [2] X. Qin, "Design and Analysis of a Load Balancing Strategy in Data Grids," *Future Generation Comp. Sys.: The Int'l J. Grid Comp.*, vol. 23, no.1, pp. 132-137, 2007.
- [3] Z.L. Zong, M.E. Briggs, N.W. O'Connor, and X. Qin, "An Energy-Efficient Framework for Large-Scale Parallel Storage Systems," *Proc. Int'l Parallel and Distributed Processing Symp.*, CA, 2007.
- [4] D. Bitton, "Disk Shadowing," *Proc. Int'l Conf. Very Large Data Bases*, pp. 331-338, 1998.
- [5] S.H. Baek, B.W. Kim, E.J. Joung, and C.W. Park, "Reliability and Performance of Hierarchical RAID with Multiple Controllers," *Proc. ACM Int'l Symp. Principles of Distri. Comp.*, pp. 246-254, 2001.
- [6] G.A. Gibson and D.A. Patterson, "Designing Disk Arrays for High Reliability," *J. Parallel and Distri. Computing*, vol. 17, no. 1-2, pp. 4-27, 1993.
- [7] R.Y. Hou and Y.N. Patt, "Using Non-volatile Storage to Improve the Reliability of RAID5 Disk Arrays," *Proc. Int'l Symp. Fault-Tolerant Comp.*, pp. 206-215, 1997.
- [8] R. Geist and K. Trivedi, "An Analytic Treatment of the Reliability and Performance of Mirrored Disk Subsystems," *Proc. Int'l Symp. Fault-Tolerant Comp.*, pp. 442-450, 1993.
- [9] S. Chen and D. Towsley, "The Design and Evaluation of RAID 5 and Parity Striping Disk Array Architectures," *J. Parallel and Distributed Comp.*, vol. 17, pp. 58-74, 1993.
- [10] S. Chen and D. Towsley, "A Performance Evaluation of RAID Architectures," *IEEE Trans. Computers*, vol. 45, no. 10, pp. 1116-1130, 1996.
- [11] E. Drakopoulos and M.J. Merges, "Performance Analysis of Client-Server Storage Systems," *IEEE Trans. Computers*, vol. 41, no. 11, pp. 1442-1452, 1992.
- [12] E. Geist, D. Finkel, and S.K. Tripathi, "Availability of A Distributed Computer Systems with Failures," *Acta Informatica*. vol. 23, no. 6, pp. 643-655, 1986.
- [13] F. Douglis, P. Krishnan, and B. Marsh, "Thwarting the Power-Hunger Disk," *Proc. USENIX Conf.*, 1994.
- [14] Q. Zhu, F.M. David, C.F. Devaaraj, Z. Li, Y. Zhou, and P. Cao, "Reducing Energy Consumption of Disk Storage Using Power-Aware Cache Management," *Proc. High-Performance Computer Architecture*, pp. 118-129, 2004.
- [15] S. W. Son and M. Kandemir, "Energy-aware Data Prefetching for Multi-speed Disks," *Proc. ACM Int'l Conf. Comp. Frontiers*, pp. 105-114, 2006.
- [16] S.W. Son, M. Kandemir, and A. Choudhary, "Software-directed disk Power Management for Scientific Applications," *Proc. Int'l Symp. Parallel and Dist. Processing*, pp. 4-14, 2005.
- [17] E. Pinheiro, R. Bianchini, and C. Dubnicki, "Exploiting Redundancy to Conserve Energy in Storage Systems," *Proc. Sigmetrics and Performance*, pp. 15-26, 2006.
- [18] S. Gurumurthi, A. Sivasubramaniam, M. Kandemir, and H. Fanke, "DRPM: Dynamic Speed Control for Power Management in Server Class Disks," *Proc. Int'l Symp. Computer Arch.*, pp. 169-179, 2003.
- [19] D.P. Helmbold, D.E. Long, T.L. Sconyers, and B. Sherrod, "Adaptive Disk Spin-Down for Mobile Computers," *Mobile Networks and Applications*, vol. 5, no. 4, pp. 285-297, 2000.
- [20] P. Krishnan, P. Long, and J. Vitter, "Adaptive Disk Spindown via Optimal Rent-to-buy in Probabilistic Environments," *Proc. Int'l Conf. Machine Learning*, pp. 322-330, 1995.
- [21] C.M. Krishna and Y.H. Lee, "Voltage-clock-scaling Techniques for Low Power in Hard Real Time Systems," *IEEE Real-Time Technology and Appl. Symp.*, pp. 156-165, 2000.
- [22] P. Pillai and K.G. Shin, "Real-time Dynamic Voltage Scaling for Low-Power Embedded Operating Systems," *Proc. ACM Symp. Operating Sys. Principles*, 2001.
- [23] H. Aydin, R. Melhem, D. Moss, and P.M. Alvarez, "Dynamic and Aggressive Scheduling Techniques for Power-aware Real-time Systems," *Proc. Real-Time Systems Symp.*, pp. 95-106, 2001.
- [24] P. Triantafillou, S. Christodoulakis and C. A. Georgiadis, "A Comprehensive Analytical Performance Model for Disk Devices under Random Workloads," *IEEE Transactions on Knowledge and Data Engineering*, vol.14, no. 1, pp. 140-155, 2002.
- [25] V. Catania, A. Puliafito and S. Riccobene, "Design and Performance Analysis of a Disk Array System," *IEEE Transactions ON Computers*, vol. 44, no. 10, pp. 1236-1247, 1995.
- [26] Y. Lee et.al., "Improving Hard Disk Drive Unloading Performance With a Disk Bump," *IEEE Transactions On Magnetics*, vol.45, no.2, pp.810-815, 2009.
- [27] G. Ma et.al., "Performance Evaluation of Storage Systems Based on Network-Attached Disks," *IEEE Transactions on Parallel and Distributed Systems*, vol.11, no. 9, pp.956-968, 2000.
- [28] R.Geist and K. Trivedi, "An analytic treatment of the reliability and performance of mirrored disk subsystems", *Fault-Tolerant Computing*, pp. 420-450, 1993.
- [29] S.W.Ng, "Crosshatch disk array for improved reliability and performance", *Proc. the 21st Annual International Symp. Computer Architecture*, pp. 255-264, 1994.
- [30] E.V. Carrera, E. Pinheiro, and R. Bianchini, "Conserving Disk Energy in Network Servers," *Proc. Int'l Conf. Supercomputing*, pp. 86-97, 2003.
- [31] S. Gurumurthi, J. Zhang, A. Sivasubramaniam, M. Kandemir, H. Fanke, N. Vijaykrishnan, and M. Irwin, "Interplay of Energy and Performance for Disk Arrays Running Transaction Processing Workloads," *IEEE Int'l Symp. Perf. Analy. Sys. and Software*, pp. 123-132, 2003.
- [32] E. Pinheiro, R. Bianchini, and C. Dubnicki, "Exploiting Redundancy to Conserve Energy in Storage Systems," *Proc. Sigmetrics and Performance*, pp. 15-26, 2006.
- [33] C. Weddle, M. Oldham, J. Qian, and A. Wang, "PARAID: The Gear-Shifting Power-Aware RAID," *Technical Report 060323*, Florida State University, 2006.

- [34] Q. Zhu, Z. Chen, L. Tan, Y. Zhou, K. Keeton, and J. Wilkes, "Hibernate: Helping Disk Arrays Sleep Through the Winter," Proc. 12th ACM Symp. Operating Sys. Principles, pp. 177-190, 2005.
- [35] F. Shen, X. Qin, A. Salazar, A. Manzanars, K. Bellam, "An Energy-Efficient Reliability Model for Parallel Disk Systems," Sixth Int'l Conf. Information Technology, pp. 843-848, Apr. 2009
- [36] E. Pinheiro, W. D. Weber and L. A. Barroso, "Failure Trends in a Large Disk Drive Population", Prof. of 5<sup>th</sup> USENIX Conf. File and Storage Systems, 2007.
- [37] D. Li, J. Wang, "eRAID: A Queueing Model Based Energy Saving Policy," 14th IEEE International Symposium on Modeling, Analysis, and Simulation, pp.77-86, 2006.
- [38] The computer failure data repository (CFDR), <http://cfd.r.usenix.org/>.
- [39] B. Schroeder, G. Gibson, "Disk Failures in the Real World: What does an MTTF of 1,000,000 hours mean to you?," Prof. of 5<sup>th</sup> USENIX Conf. File and Storage Systems, 2007.
- [40] F. Shen, X. Qin, M.-T. Sun, and A. Salazar, "A Reliability Model of Energy-Efficient Parallel Disk Systems with Data Mirroring," International Journal of High Performance Systems Architecture, Vol. 20, No. 4, pp. 240-249, 2010.