

List of Publications

Refereed Conference, Workshop, and Journal Publications

68. Michail Alvanos, George Tzenakis, Dimitrios S. Nikolopoulos, and Angelos Bilas. Design and Evaluation of a Task-based Parallel H.264 Video Encoder for Heterogenous Processors. In Proc. of the 2011 International Conference on Embedded Computer Systems: Architectures, Modeling, and Simulation (SAMOS XI), July 2011.
67. Markos Fountoulakis, Manolis Marazakis, Michail D. Flouris, and Angelos Bilas. Design and Evaluation of an I/O Controller for Data Protection. In The 3rd Annual Haifa Experimental Systems Conference (SYSTOR 2010), May 2010. [pdf]
66. Michail D. Flouris and Renaud Lachaize and Konstantinos Chasapis and Angelos Bilas. Extensible block-level storage virtualization in cluster-based systems. *Journal of Parallel and Distributed Computing*(2010):10.1016. [pdf]
65. Thanos Makatos, Yannis Klonatos, Manolis Marazakis, Michail D. Flouris, and Angelos Bilas. Using Transparent Compression to Improve SSD-based I/O Caches. In Proc. of The EuroSys 2010 Conference (Eurosys'2010), April 2010. [pdf].
64. Thanos Makatos, Yannis Klonatos, Manolis Marazakis, Michail D. Flouris, and Angelos Bilas. ZBD: Using Transparent Compression at the Block Level to Increase Storage Space Efficiency. In Proc. of The 6th IEEE International Workshop on Storage Network Architecture and Parallel I/O (SNAPI'2010), May 2010. [pdf].
63. George Tzenakis, Konstantinos Kapelonis, Michail Alvanos, Konstantinos Koukos, Dimitrios S. Nikolopoulos, and Angelos Bilas. Tagged procedure calls (TPC): Efficient runtime support for task-based parallelism on the cell processor. In Proc. of the 2010 International conference on High-Performance Embedded Architectures and Compilers (HiPEAC2010), January 2010. [pdf].
62. Stavros Passas, Kostas Magoutis, and Angelos Bilas. Towards 100 gbit/s ethernet: Multicore-based parallel communication protocol desgin. In Proc. of the 23rd ACM International Conference on Supercomputing (ICS09), June 2009. [pdf].
61. George Panagiotakis, Michail D. Flouris, and Angelos Bilas. Reducing disk i/o performance sensitivity for large numbers of sequential streams. In Proceedings of The 29th International Conference on Distributed Computing Systems (ICDCS'09), June 2009. [pdf].
60. Evangelos Mangas and Angelos Bilas. Flash: Fine-grained localization in wireless sensor networks using acoustic sound transmissions and high precision clock synchronization. In Proceedings of The 29th International Conference on Distributed Computing Systems (ICDCS'09), June 2009. [pdf].
59. Michail D. Flouris, Renaud Lachaize, and Angelos Bilas. Orchestra: Extensible block-level support for resource and data sharing in networked storage systems. In In IEEE Intern. Conference on Parallel and Distributed Systems (ICPADS '08), December 2008. [pdf]. Also, as FORTH-ICS Technical Report TR-380-2006.

- 58.** Stavros Passas, George Kotsis, Sven Karlsson, and Angelos Bilas. Exploiting spatial parallelism in ethernet-based cluster interconnects. In *The workshop on Communication Architectures for Clusters (CAC'2008)*. Held in conjunction with IPDPS'08, April 2008. [pdf].
- 57.** Maciej Brzezniak, Norbert Meyer, Michail Flouris, and Angelos Bilas. Evaluation of custom technology-based vs commodity technology-based Storage Elements, Book Chapter. In *Book on Grid and Services Evolution*, pages 1-9. Springer US, 2009. [pdf][ps.gz]. Also, in *3rd CoreGRID Workshop on Grid Middleware 2008*, June 2008, Barcelona, Spain. Also, as *CoreGRID Technical Report TR-0168*, 2008.
- 56.** Zoe Sebeopou, Kostas Magoutis, Manolis Marazakis, and Angelos Bilas. A comparative experimental study of parallel file systems for large-scale data processing. In *LASCO'08: First USENIX Workshop on Large-Scale Computing*, pages 1-10. USENIX Association, 2008. [pdf].
- 55.** Jesus Luna, Michail Flouris, Manolis Marazakis, Angelos Bilas, Marios D. Dikaiakos, Harald Gjermundrod, and Theodoros Kyprianou. A data-centric security analysis of icgrid, book chapter. In *Book on Grid Computing: Achievements and Prospects*. S. Gorlatch, P. Fragopoulou, T. Priol (Eds.), pages 197-208. Springer US, 2008. [pdf][ps.gz]. An early version appeared in *3rd CoreGRID Integration Workshop*, April 2-4, 2008; *Integrated Research in Grid Computing*; S. Gorlatch, P. Fragopoulou (eds.), Crete University Press, pp 165-176. Also, as *CoreGRID Technical Report TR-0145*.
- 54.** Jesus Luna, Michail Flouris, Manolis Marazakis, and Angelos Bilas. Providing Security to the Desktop Data Grid. In *Workshop on Desktop Grids and Volunteer Computing Systems (PCGrid'08)*. Held in conjunction with IPDPS'08, April 2008. [pdf]. Also, as *CoreGRID Technical Report TR-0144*.
- 53.** Jesus Luna, Michail Flouris, Manolis Marazakis, Angelos Bilas, Federico Stagni, Alberto Forti, Antonia Ghiselli, Luca Magnoni, and Riccardo Zappi. An Analysis of Security Services in Grid Storage Systems, Book Chapter. In *Book on Grid Middleware and Services*, pages 171-185. Springer US, 2008. [pdf][ps.gz]. Also, in the *CoreGRID Workshop on Grid Middleware*. June 2007. Dresden, Germany. Held with the *International Supercomputing Conference (ISC07)*. Also, as *CoreGRID Technical Report TR-0090*, 2007.
- 52.** Maciej Brzezniak, Norbert Meyer, Michail Flouris, Renaud Lachaize, and Angelos Bilas. An Analysis of GRID Storage Element Architectures: High-end Fiber-Channel vs. Emerging Cluster-based Networked Storage, Book Chapter. In *Book on Grid Middleware and Services*, pages 187-201. Springer US, 2008. [pdf]. Also, in *CoreGRID Workshop on Grid Middleware*. June 2007. Dresden, Germany. Held with the *International Supercomputing Conference (ISC07)*, Also, as *CoreGRID Technical Report TR-0088*, 2007.
- 51.** M. Marazakis, V. Papaefstathiou, and A. Bilas. Optimization and Bottleneck Analysis of Network Block I/O in Commodity Storage Systems. In *Proc. of the 21st ACM International Conference on Supercomputing (ICS07)*, June 2007. [pdf].
- 50.** Stavros Passas, George Kotsis, Sven Karlsson, and Angelos Bilas. Multiedge: An edge-based communication subsystem for scalable commodity servers. In *Proc. of the 21th International Parallel and Distributed Processing Symposium (IPDPS2007)*, March 2007. [pdf].
- 49.** Z. Nemeth, M. Flouris, R. Lachaize, and A. Bilas. Support for Automatic Diagnosis and Dynamic Configuration of Scalable Storage Systems, Book Chapter. In *Book on Euro-Par 2006: Parallel Processing*, LNCS Series. Revised Selected Papers from Euro-Par Workshops. CoreGRID 2006

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- 48.** M. Flouris, R. Lachaize, and A. Bilas. Violin: a Framework for Extensible Block-Level Storage, Book Chapter. In *Book on Knowledge and Data Management in Grids*, CoreGRID series, Springer Verlag, pages 83-98. Springer US, 2007. [pdf][ps.gz].
 - 47.** Z. Nemeth, M. Flouris, R. Lachaize, and A. Bilas. Conductor: Support for Autonomous Configuration of Storage Systems, Book Chapter. In *Book on Knowledge and Data Management in Grids*, CoreGRID series, Springer Verlag, pages 67-81. Springer US, 2007. [pdf][ps.gz]. Also, as CoreGRID Technical Report, TR-0057, 2006.
 - 46.** Manolis Marazakis, Vassilis Papaefstathiou, George Kalokairinos, and Angelos Bilas. Experiences from Debugging a PCI-X-based RDMA-capable Network Interface Card. In *Third Workshop on Remote Direct Memory Access (RDMA): Applications, Implementations, and Technologies (RAIT 2006)*. In conjunction with the 2006 IEEE International Conference on Cluster Computing (Cluster2006), September 2006. [pdf].
 - 45.** M. Flouris, R. Lachaize, and A. Bilas. Using Lightweight Transactions and Snapshots for Fault-Tolerant Services Based on Shared Storage Bricks. In *International Workshop on High Performance I/O Techniques and Deployment of Very Large Scale I/O Systems (HiperIO'06)*. In conjunction with the 2006 IEEE International Conference on Cluster Computing (Cluster2006), September 2006. [pdf].
 - 44.** M. Marazakis, K. Xinidis, V. Papaefstathiou, and A. Bilas. Efficient Remote Block-level I/O over an RDMA-capable NIC. In *Proc. of the 20th ACM International Conference on Supercomputing (ICS06)*, June 2006. [pdf].
 - 43.** Rozalia Christodouloupoulou, Kaloian Manassiev, Angelos Bilas, and Cristiana Amza. Fast and transparent recovery for continuous availability of cluster-based servers. In *Proc. of The 2006 ACM Symposium on Principles and Practice of Parallel Programming (PPoPP06)*, March 2006. [pdf].
 - 42.** Michail D. Flouris, Stergios Anastasiadis, and Angelos Bilas. Block-level Virtualization: How far can we go? In *Proceedings of the Second IEEE-CS International Symposium on Global Data Interoperability - Challenges and Technologies*, Sardinia, Italy, June 2005. [pdf].
 - 41.** Michail D. Flouris and Angelos Bilas. Violin: A Framework for Extensible Block-level Storage. In *13th NASA Goddard & 22st IEEE Conference on Mass Storage Systems and Technologies (MSST2005)*, Monterey, CA, April 2005. [pdf]. Also, as FORTH-ICS Technical Report TR-344-2004.
 - 40.** Dimitrios Xinidis, Michail D. Flouris, and Angelos Bilas. Performance Evaluation of Commodity iSCSI-based Storage Systems. In *13th NASA Goddard & 22st IEEE Conference on Mass Storage Systems and Technologies (MSST2005)*, April 2005. [pdf]. Short paper.
 - 39.** Dimitrios Xinidis, Michail D. Flouris, and Angelos Bilas. Virtual Timers: Using Hardware Physical Timers for Profiling Kernel Code-Paths. In *Proc. of 8th Workshop on Computer Architecture Evaluation using Commercial Workloads (CAECW-8)*, February 2005. [pdf].

38. John Yannakopoulos and Angelos Bilas. Cormos: A communication-oriented runtime system for sensor networks. In Proc. of The Second European Workshop on Wireless Sensor Networks (EWSN 2005), February 2005. [pdf].
37. Yuanyuan Zhou, Angelos Bilas, Suresh Jagannathan, Dimitrios Xinidis, Cezary Dubnicki, and Kai Li. Vi-attached database storage. IEEE Transactions on Parallel and Distributed Systems, 16(1):35-50, 2005. [pdf].
36. C. Cavanna, T. Abdelrahman, A. Bilas, and P. Jamieson. Jupiter/svm: a jvm-based single system image for clusters of workstations. In Proc. of the 16th IASTED International Conference on Parallel and Distributed Computing and Systems (PDCS2004), November 2004. [pdf].
35. Ahmed Abdelkhalek and Angelos Bilas. Parallelization and performance of interactive multiplayer game servers. In Proc. of the 18th International Parallel and Distributed Processing Symposium (IPDPS2004), April 2004. [pdf].
34. Michail D. Flouris and Angelos Bilas. Clotho: Transparent data versioning at the block i/o level. In 12th NASA Goddard & 21st IEEE Conference on Mass Storage Systems and Technologies (MSST2004), April 2004. [pdf]. Also, FORTH-ICS Technical Report, TR-326-2003.
33. Angelos Bilas, Dongming Jiang, and Jaswinder Pal Singh. Shared virtual memory clusters: Bridging the cost-performance gap between smps and hardware dsm systems. Journal of Parallel and Distributed Computing, 63(12):1257-1276, December 2003. [pdf].
32. R. Azimi and A. Bilas. mini: Reducing network interface memory requirements with dynamic handle lookup. In Proc. of the 17th ACM International Conference on Supercomputing (ICS03), June 2003. [pdf].
31. R. Azimi and A. Bilas. Evaluating the performance impact of dynamic handle lookup in modern network interfaces. In Proc. of The 2nd Annual Workshop on Novel Uses of System Area Networks (SAN-2), February 2003. [pdf].
30. R. Christodouloupoulou, R. Azimi, and A. Bilas. Dynamic data replication: An approach to providing fault-tolerant shared memory clusters. In Proc. of The 9th IEEE Symposium on High-Performance Computer Architecture (HPCA9), February 2003. [pdf].
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28. Angelos Bilas, Courtney R. Gibson, Reza Azimi, Rosalia Christodouloupoulou, and Peter Jamieson. Using system emulation to model next-generation shared virtual memory clusters. Special Issue of Cluster Computing: the Journal of Networks, Software Tools and Applications, 6(4):325-338, June 2003. [pdf].
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17. A. Abdelkhalek, A. Bilas, and A. Michaelides. Parallelization, optimization, and performance analysis of portfolio choice models. In Proc. of the 2001 International Conference on Parallel Processing (ICPP01), September 2001. [pdf]. Also, University of Toronto (Department of ECE) Technical Report TR-01-01-01.
16. D. Jiang, B. Cokelley, X. Yu, A. Bilas, and J. P. Singh. Application scaling under shared virtual memory on a cluster of smps. In Proc. of the 13th ACM International Conference on Supercomputing (ICS99), pages 165-174, June 1999. [pdf].
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6. S. Damianakis, A. Bilas, C. Dubnicki, and E.W. Felten. Client-server computing on shrimp. IEEE Micro. Volume 17:1, Pages 8-18, February 1997. [pdf].
5. C. Dubnicki, A. Bilas, Y. Chen, S. Damianakis, and K. Li. VMMC-2: efficient support for reliable, connection-oriented communication. In Proc. of The 1997 IEEE Symposium on High Performance Interconnects (HOT Interconnects V). Stanford, CA, USA., August 1997. [pdf]. A short version of this appears in IEEE Micro, Jan/Feb, 1998.
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Other Publications

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1. Thlivitris Theodoros and Angelos Bilas. Creation of realistic landscapes using fractals (in greek). Undergraduate Thesis, Department of Computer Engineering and Informatics, University of Patras, Patras GR-26500, Greece, May 1993. [pdf].