Reference List of H. J. Siegel Publications Related to Robustness (4/23/12)
http://www.engr.colostate.edu/~hj/Robust_Papers.pdf

Citations include hyperlinks to the papers.

1. Shoukat Ali, Anthony A. Maciejewski, Howard Jay Siegel, and Jong-Kook Kim, "On the Robustness of Resource Allocation for Parallel and Distributed Computing and Communications," *The 2003 International Multiconference in Computer Science and Computer Engineering*, cosponsors: CSREA et al., in the proceedings of the International Conference on Parallel and Distributed Processing Techniques and Applications (PDPTA '03), Vol. I, pp. 1-14, Las Vegas, NV, June 2003. Invited – I was the keynote speaker.

2. Shoukat Ali, Anthony A. Maciejewski, and Howard Jay Siegel, "Measuring Robustness for Distributed Computing Systems," *International Workshop on Frontiers of Information Technology*, cosponsors: National Science Foundation and Committee on Science and Technology for the Sustainable Development in the South (COMSATS), Islamabad, Pakistan, Dec. 2003.

3. Shoukat Ali, Anthony A. Maciejewski, Howard Jay Siegel, and Jong-Kook Kim, "Measuring the Robustness of a Resource Allocation," *IEEE Transactions on Parallel and Distributed Systems*, Vol. 15, No. 7, pp. 630-641, July 2004.

4. Shoukat Ali, Howard Jay Siegel, and Anthony A. Maciejewski, "The Robustness of a Resource Allocation in Parallel and Distributed Computing Systems," joint meeting of *ISPDC 2004: Third International Symposium on Parallel and Distributed Computing,* and *HeteroPar '04: Third International Workshop on Algorithms, Models and Tools for Parallel Computing on Heterogeneous Networks*, sponsor: Enterprise Ireland, pp. 2-10, Cork, Ireland, July 2004. Invited – I was one of two keynote speakers.

5. Vladimir Shestak, Howard Jay Siegel, Anthony A. Maciejewski, and Shoukat Ali, "Robust Resource Allocations in Parallel Computing Systems: Model and Heuristics," *8th International Symposium on Parallel Architectures, Algorithms, and Networks (I-SPAN 2005),* cosponsors: University of Nevada, Las Vegas, and the Center for the Advanced Study of Algorithms (CASA), pp. 2-9, Las Vegas, NV, Dec. 2005. Invited – I was one of three keynote speakers.

6. Vladimir Shestak, Howard Jay Siegel, Anthony A. Maciejewski, and Shoukat Ali, "The Robustness of Resource Allocations in Parallel and Distributed Computing Systems," *19th International Conference on the Architecture of Computing Systems (ARCS 2006),* cosponsors: GI (German Informatics Society) and ITG (Information Technology Society), Frankfurt, Germany, Mar. 2006 (proceedings *Architecture of Computing Systems - ARCS 2006,* published as Volume 3894 of Lecture Notes in Computer Science, edited by Werner Grass, Bernhard Sick, and Klaus Waldschmidt, pp. 17-30, Springer-Verlag, Berlin, Germany, 2001). Invited – I was one of four keynote speakers.

7. Jay Smith, Luis D. Briceño, Anthony A. Maciejewski, Howard Jay Siegel, Timothy Renner, Vladimir Shestak, Joshua Ladd, Andrew Sutton, David Janovy, Sudha Govindasamy, Amin Alqudah, Rinku Dewri, and Puneet Prakash, "Measuring the Robustness of Resource Allocations in a Stochastic Dynamic Environment," *21st International Parallel and Distributed Processing Symposium (IPDPS 2007),* sponsor: IEEE Computer Society, Long Beach, CA, Mar. 2007.

8. David L. Janovy, Jay Smith, Howard Jay Siegel, and Anthony A. Maciejewski, "Models and Heuristics for Robust Resource Allocation in Parallel and Distributed Computing Systems," *NSF Next Generation Software Program Workshop (NSFNGS 2007)*, sponsor: NSF, in the proceedings of the 21st International Parallel and Distributed Processing Symposium (IPDPS 2007), Long Beach, CA, Mar. 2007, invited.

9. Prasanna Sugavanam, Howard Jay Siegel, Anthony A. Maciejewski, Mohana Oltikar, Ashish Mehta, Ron Pichel, Aaron Horiuchi, Vladimir Shestak, Mohammad Al-Otaibi, Yogish Krishnamurthy, Syed Ali, Junxing Zhang, Mahir Aydin, Panho Lee, Kumara Guru, Michael Raskey, and Alan Pippin, "Robust Static Allocation of Resources for Independent Tasks under Makespan and Dollar Cost Constraints, *Journal of Parallel and Distributed Computing*, Vol. 67, No. 4, pp. 400-416, Apr. 2007.

10. Ashish M. Mehta, Jay Smith, Howard Jay Siegel, Anthony A. Maciejewski, Arun Jayaseelan, and Bin Ye, "Dynamic Resource Allocation Heuristics that Manage Tradeoff Between Makespan and Robustness," *Journal of Supercomputing*, Special Issue on Grid Technology, Vol. 42, No. 1, pp. 33-58, 2007.

11. Shoukat Ali, Anthony A. Maciejewski, and Howard Jay Siegel, "Perspectives on Robust Resource Allocation for Heterogeneous Parallel Systems," in *Handbook of Parallel Computing: Models, Algorithms, and Applications*, edited by Sanguthevar Rajasekaran and John Reif, Chapman & Hall/CRC Press, Boca Raton, FL, pp. 41-1 – 41-30, 2008.

12. Vladimir Shestak, Edwin K. P. Chong, Howard Jay Siegel, Anthony A. Maciejewski, Lotfi Benmohamed, I-Jeng Wang, and Rose Daley, "A Hybrid Branch-and-Bound and Evolutionary Approach for Allocating Strings of Applications to Heterogeneous Distributed Computing Systems," *Journal of Parallel and Distributed Computing*, Vol. 68, No. 4, pp. 410-426, Apr. 2008.

13. Jay Smith, Edwin K. P. Chong, Anthony A. Maciejewski, and Howard Jay Siegel, "Decentralized Market-Based Resource Allocation in a Heterogeneous Computing System," *22nd International Parallel and Distributed Processing Symposium (IPDPS 2008)*, sponsor: IEEE Computer Society, Miami, FL, Apr. 2008

14. Samee Ullah Khan, Anthony A. Maciejewski, Howard Jay Siegel, and Ishfaq Ahmad, "A Game Theoretical Data Replication Technique for Mobile Ad Hoc Networks," *22nd International Parallel and Distributed Processing Symposium (IPDPS 2008),* sponsor: IEEE Computer Society, Miami, FL, Apr. 2008.

15. Jay Smith, Howard Jay Siegel, and Anthony A. Maciejewski, "A Stochastic Model for Robust Resource Allocation in Heterogeneous Parallel and Distributed Computing Systems," *NSF Next Generation Software Program Workshop (NSFNGS 2008)*, sponsor: NSF, in the 22nd International Parallel and Distributed Processing Symposium (IPDPS 2008), Miami, FL, Apr. 2008, invited.

16. Jay Smith, Howard Jay Siegel, and Anthony A. Maciejewski, "Iterative Techniques for Maximizing Stochastic Robustness of a Static Resource Allocation in Periodic Sensor Driven Clusters," *2008 International Conference on Parallel and Distributed Processing Technologies and Applications (PDPTA 2008)*, cosponsors: World Academy of Science and Computer Science Research, Education, and Applications (CSREA), Vol. 1, pp. 3-9, Las Vegas, NV, July 2008.

17. Shoukat Ali, Jong-Kook Kim, Howard Jay Siegel, and Anthony A. Maciejewski, "Static Heuristics for Robust Resource Allocation of Continuously Executing Applications," *Journal of Parallel and Distributed Computing*, Vol. 68, No. 8, pp. 1070-1080, Aug. 2008.

18. Vladimir Shestak, Jay Smith, Anthony A. Maciejewski, and Howard Jay Siegel, "Stochastic Robustness Metric and its Use for Static Resource Allocations," *Journal of Parallel and Distributed Computing*, Vol. 68, No. 8, pp. 1157-1173, Aug. 2008.

19. Tracy D. Braun, Howard Jay Siegel, Anthony A. Maciejewski, and Ye Hong, "Static Resource Allocation for Heterogeneous Computing Environments with Tasks Having Dependencies, Priorities, Deadlines, and Multiple Versions," *Journal of Parallel and Distributed Computing*, Vol. 68, No. 11, pp. 1504-1516, Nov. 2008.

20. Luis Diego Briceño, Howard Jay Siegel, Anthony A. Maciejewski, Ye Hong, Brad Lock, Mohammad Nayeem Teli, Fadi Wedyan, Charles Panaccione, Chris Klumph, Kody Willman, and Chen Zhang, "Robust Resource Allocation in a Massive Multiplayer Online Gaming Environment," *4th International Conference on the Foundations of Digital Games (FDG 2009)*, cosponsors: Microsoft and Electronic Arts, p. 232-239, Orlando, FL, Apr. 2009.

21. Vladimir Shestak, Edwin K. P. Chong, Anthony A. Maciejewski, and Howard Jay Siegel, "Robust Sequential Resource Allocation in Heterogeneous Distributed Systems with Random Compute Node Failures," *18th Heterogeneity in Computing Workshop (HCW 2009)*, cosponsors: IEEE Computer Society and Office of Naval Research, in the proceedings of the 23rd International Parallel and Distributed Processing Symposium (IPDPS 2009), Rome, Italy, May 2009.

22. Paul Maxwell, Anthony A. Maciejewski, Howard Jay Siegel, Jerry Potter, and Jay Smith, "A Mathematical Model of Robust Military Village Searches for Decision Making Purposes," *The 2009 International Conference on Information and Knowledge Engineering (IKE '09)*, sponsor: World Academy of Science and Computer Science Research, Education, and Applications (CSREA), pp. 49-56, Las Vegas, NV, July 2009.

23. Jay Smith, Vladimir Shestak, Howard Jay Siegel, Suzy Price, Larry Teklits, and Prasanna Sugavanam, "Robust Resource Allocation in a Cluster Based Imaging System," *Parallel Computing*, Vol. 35, No. 7, pp. 389-400, July 2009.

24. Jay Smith, Edwin K. P. Chong, Anthony A. Maciejewski, and Howard Jay Siegel, "Stochastic-Based Robust Dynamic Resource Allocation in a Heterogeneous Computing System," *2009 International Conference on Parallel Processing (ICPP 2009)*, cosponsors: The International Association for Computers and Communications (IACC) and the Austrian Computer Society, Vienna, Austria, Sep. 2009.

25. Paul Maxwell, Howard Jay Siegel, Jerry Potter, and Anthony A. Maciejewski, "The ISTeC People-Animals-Robots Laboratory: Robust Resource Allocation," *2009*

IEEE International Workshop on Safety, Security, and Rescue Robotics (SSRR 2009), sponsor: IEEE Robotics and Automation Society, Denver, CO, Nov. 2009. I was a plenary speaker.

26. Howard Jay Siegel, "Stochastically Robust Resource Management in Heterogeneous Parallel Computing Systems," *The 10th International Symposium on Pervasive Systems, Algorithms and Networks (I-SPAN 2009)*, cosponsors: Intel, Microsoft Research, Stark Technologies Inc., and Computer Society of the Republic of China, Kaohsiung, Taiwan, Dec. 2009. Invited – I was one of three keynote speakers.

27. Luis Diego Briceño, Jay Smith, Howard Jay Siegel, Anthony A. Maciejewski, Paul Maxwell, Russ Wakefield, Abdulla Al-Qawasmeh, Ron C. Chiang, and Jiayin Li, "Robust Resource Allocation of DAGs in a Heterogeneous Multicore System," *19th Heterogeneity in Computing Workshop (HCW 2010)*, cosponsors: IEEE Computer Society and Office of Naval Research, in the proceedings of the IPDPS 2010 Workshops & PhD Forum (IPDPSW), 11 pp., Atlanta, GA, Apr. 2010

28. Paul Maxwell, Anthony A. Maciejewski, Howard Jay Siegel, and Jerry Potter, "A Cordon and Search Model and Simulation using Timed, Stochastic, Colored Petri Nets for Robust Decision-Making," *Military Modeling Symposium,* part of the *2010 Spring Simulation Multiconference (SpringSim '10)*, sponsor: The Society for Modeling & Simulation International, pp. 11-18, Orlando, FL, Apr. 2010.

29. James (Jay) Smith, Jonathan Apodaca, Anthony A. Maciejewski, and Howard Jay Siegel, "Batch Mode Stochastic-Based Robust Dynamic Resource Allocation in a Heterogeneous Computing System," *International Conference on Parallel and Distributed Processing Techniques and Applications (PDPTA '10)*, sponsor: World Academy of Science and Computer Science Research, Education, and Applications (CSREA), Las Vegas, NV, July 2010.

30. Bernabe Dorronsoro, Pascal Bouvry, J. Alberto Canero, Anthony A. Maciejewski and Howard Jay Siegel, "Multi-objective Robust Static Mapping of Independent Tasks on Grids," *2010 IEEE Congress on Evolutionary Computation (CEC 2010)*, sponsor: IEEE Computational Intelligence Society, pp. 3389-3396, Barcelona, Spain, July 2010.

31. Young Choon Lee, Albert Y. Zomaya, and Howard Jay Siegel, "Robust Task Scheduling for Volunteer Computing Systems," *The Journal of Supercomputing*, Special Issue on Network-Based High Performance Computing, Vol. 53, No. 1, pp. 163-181, July 2010.

32. Ryan Friese, Paul Maxwell, Anthony A. Maciejewski, and Howard Jay Siegel, "A Graphical User Interface for Simulating Robust Military Village Searches," *International Conference on Modeling, Simulation and Visualization Methods (MSV '11)*, sponsor: World Academy of Science and Computer Science Research, Education, and Applications (CSREA), Las Vegas, NV, July 2011.

33. Luis Diego Briceno, Howard Jay Siegel, Anthony Maciejewski, Mohana Oltikar, Jeff Brateman, Joe White, Jon Martin, and Keith Knapp, "Heuristics for Robust Resource Allocation of Satellite Weather Data Processing onto a Heterogeneous Parallel System," *IEEE Transactions on Parallel and Distributed Systems*, accepted to appear, Vol. 22, No. 11, pp. 1780-1787, Nov. 2011.

34. Jonathan Apodaca, Dalton Young, Luis Diego Briceño, Jay Smith, Sudeep Pasricha, Anthony A. Maciejewski, Howard Jay Siegel, Shirish Bahirat, Bhavesh Khemka,

Adrian Ramirez, and Yong Zou, "Stochastically Robust Static Resource Allocation for Energy Minimization with a Makespan Constraint in a Heterogeneous Computing Environment," *9th ACS/IEEE International Conference on Computer Systems and Applications (AICCSA 2011)*, cosponsors: Arab Computer Society and IEEE Computer Society, pp. 22-31, Sharm El-Sheikh, Egypt, Dec. 2011. Received one of three "best paper" awards given.

35. Jay Smith, Edwin K. P. Chong, Anthony A. Maciejewski, and Howard Jay Siegel, "Overlay Network Resource Allocation Using a Decentralized Market-Based Approach," *Future Generation Computer Systems*, Vol. 28, No. 1, pp. 24-35, Jan. 2012.

36. Florina M. Ciorba, Timothy Hansen, Srishti Srivastava, Ioana Banicescu, Anthony A. Maciejewski, and Howard Jay Siegel, "A Combined Dual-stage Framework for Robust Scheduling of Scientific Applications in Heterogeneous Environments with Uncertain Availability," *21st Heterogeneity in Computing Workshop (HCW 2012),* in the proceedings of 2012 International Parallel and Distributed Processing Symposium Workshops and PhD Forum (IPDPSW), Shanghai, China, May 2012.

37. Paul Maxwell, Anthony A. Maciejewski, Howard Jay Siegel, Jerry Potter, Gregory Pfister, Jay Smith, and Ryan Friese, "Robust Static Planning Tool for Military Village Search Missions: Model and Heuristics," *Journal of Defense Modeling and Simulation*, accepted, to appear.

38. Vladimir Shestak, Edwin K. P. Chong, Anthony A. Maciejewski, and Howard Jay Siegel, "Probabilistic Resource Allocation in Heterogeneous Distributed Systems with Random Failures," *Journal of Parallel and Distributed Computing*, accepted, to appear.

39. B. Dalton Young, Jonathan Apodaca, Luis Diego Briceño, Jay Smith, Sudeep Pasricha, Anthony A. Maciejewski, Howard Jay Siegel, Bhavesh Khemka, Shirish Bahirat, Adrian Ramirez, and Young Zou, "Deadline and Energy Constrained Dynamic Resource Allocation in a Heterogeneous Computing Environment," *The Journal of Supercomputing*, accepted, to appear.