

# Giuseppe SERAZZI

## Publications

July 31st, 2024

- 179 G. Serazzi, "Performance Engineering: Learning Through Applications Using JMT, **Open Access ebook**, 146 pp., Springer Nature, 2024. <https://doi.org/10.1007/978-3-031-36763-2>
- 178 E. Barbierato, M. Gribaudo, G. Serazzi, L. Tanca, "Performance Evaluation of a Data Lake Architecture via Modeling Techniques". *EPEW*, pp. 115-130, 2021. DOI 10.1007/978-3-030-91825-5\_7
- 177 G. Serazzi, "Updating the Content of Performance Analysis Textbooks", *ICPE 2021, Proc. 12th ACM/SPEC International Conference on Performance Engineering, TeaPACS Workshop*, 2021
- 176 E. Barbierato, M. Gribaudo, G. Serazzi, "Multiformalism Models for Performance Engineering", *Future Internet*, 12 (3): 50, 2020. DOI: 10.3390/fi12030050
- 175 L. Arcari, M. Gribaudo, G. Palermo, G. Serazzi "Performance-Driven Analysis for an Adaptive Car-Navigation Service on HPC Systems", *SN Computer Science*, 1:41, 2020. DOI 10.1007/s42979-019-0035-7
- 174 D. Cerotti, M. Gribaudo, R. Pinciroli, G. Serazzi, "Modeling Techniques for Pool Depletion Systems", *Systems Modeling: Methodologies and Tools*, pp. 79-94, 2019.
- 173 G. Casale, G. Serazzi, L. Zhu, "JSIM: the Queueing Petri Nets simulator of JMT", *New Frontiers in Quantitative Methods in Informatics - 8th Workshop, InfQ18*, Milan, Italy, Nov.23, 2018.
- 172 R. Pinciroli, M. Gribaudo, M. Roveri, G. Serazzi, "Capacity Planning of Fog Computing Infrastructures for Smart Monitoring", *New Frontiers in Quantitative Methods in Informatics - 7th Workshop, InfQ17@Valuetools*, Venice, Italy, pp.72--81, 2017. DOI 10.1007/978-3-319-91632-3\_6.
- 171 G. Casale, G. Serazzi, L. Zhu, "Performance Evaluation with Java Modelling Tools: : A Hands-on Introduction", *IFIP Performance 2017*, New York, NY, USA (slides).
- 170 G. Casale, G. Serazzi, L. Zhu, "Performance Evaluation with Java Modelling Tools: A Hands-on Introduction", *SIGMETRICS Performance Evaluation Review*, 45(3), pp. 246-247, 2017 (tutorial).
- 169 R. Pinciroli, M. Gribaudo, G. Serazzi, "Modeling multiclass task-based applications on heterogeneous distributed environments", *ASMTA 2017*, ,N. Thomas.,M. Forshaw Eds, LNCS, Springer, pp.166-180, 2017, ISBN 9783319614274.
- 168 G. Serazzi, "Learning performance engineering through applications", *ICPE 2017, Proc. of 2017 ACM/SPEC International Conference on Performance Engineering*, pp.193-194, 2017, ISBN 9781450348997
- 167 G. Casale, M. Cazzoli, S. Jiang, V. S. Lopes, G. Serazzi, L. Zhu, "Generalized synchronizations and capacity constraints for Java Modelling Tools", *ICPE 2017 – Proc. of 2017 ACM/SPEC International Conference on Performance Engineering*, pp.169-170, 2017, ISBN 9781450344043
- 166 S. Dipietro, G. Casale, G. Serazzi, "A queueing network model for performance prediction of Apache Cassandra", *ValueTools 2016 - 10th EAI International Conference on Performance Evaluation Methodologies and Tools*, ACM, pp.186-193, 2017, ISBN 9781631901416
- 165 D. Cerotti, M. Gribaudo, R. Pinciroli, G. Serazzi, "Optimal population mix in pool depletion systems with two-class workload", *ValueTools 2016 - 10th EAI International Conference on Performance Evaluation Methodologies and Tools*, ACM, pp.11-18, 2017, ISBN 9781631901416, DOI 10.4108/eai.25-10-2016.2266566, Scopus 2-s2.0-85021200612.
- 164 D. Cerotti, M. Gribaudo, R. Pinciroli, G. Serazzi, "Stochastic Analysis of energy consumption in pool depletion systems", *MMB16*, Measurement, Modelling, and Evaluation of Computing Systems and Dependability and Fault Tolerance, LNCS. pp.25-39, 2016

- 163 D. Cerotti, M. Gribaudo, P. Piazzolla, G. Serazzi, "Matching Performance Objectives for Open and Closed Workloads by Consolidation and Replication", *ANOR Annals of Operations Research*, 239(2) ISSN 02545330, DOI 10.1007/s10479-014-1591-9, pp.589-612, 2016.
- 162 D. Cerotti, M. Gribaudo, P. Piazzolla, R. Pincioli, G. Serazzi, "Modeling Power Consumption in Multicore CPUs with Multithreading and Frequency Scaling", *ISCIS 2015 30th Int.l Conf. on Computer and Information Sciences*, pp.81-90, London, 2015. ISBN 978-3-319-22634-7, DOI 10.1007/978-3-319-22635-4\_7 , ISSN: 1876-1100.
- 161 D. Cerotti, M. Gribaudo, P. Piazzolla, G. Serazzi, "Asymptotic Behavior and Performance Constraints of Replication Policies", *Electronic Notes in Theoretical Computer Science, Elsevier B.V.*, 310, 5, pag.49-63, Jan.2015, 1571-0661, <http://dx.doi.org/10.1016/j.entcs.2014.12.012>
- 160 M. Gribaudo, N.T.T. Ho, B. Pernici, G. Serazzi, "Analysis of the Influence of Application Deployment on Energy Consumption", *E2DC 2014 3rd Int.l Workshop Conf. Energy Efficient Data Centers, Cambridge, June 2014, S. Klingert et al. (Eds.): LNCS 8945, Springer*, pp. 87–101, 2015. ISSN: 1611-3349, DOI: 10.1007/978-3-319-15786-3\_6, ISBN: 98783319157856
- 159 A. Rosà, W. Binder, L.Y. Chen, M. Gribaudo, G. Serazzi, "ParSim: a Tool for Workload Modeling and Reproduction of Parallel Applications", *IEEE MASCOTS14, Modelling, Analysis & Simulation of Computer and Telecommunication Systems*, 2014 , Sept.2014, Paris, pag.494-497, ISSN: 1526-7539 , DOI: 10.1109/MASCOTS.2014.71 .
- 158 D. Cerotti, M. Gribaudo, P. Piazzolla, R. Pincioli, G. Serazzi, "Multi-Class Queuing Networks Models for Energy Optimization", *VALUETOOLS 2014 8th In.l Conf. on Performance Evaluation Methodologies and Tools*, pp.98-105, Bratislava, Slovakia, 2014. ISBN 978-1-63190-057-0 , DOI: 10.4108/icst.valuetools.2014.258214.
- 157 D. Cerotti, M. Gribaudo, R. Pincioli, G. Serazzi, "Energy consumption minimization in systems with multi-class workloads", *ECQT 2014 First European Conference on Queueing Theory*, Ghent, Belgium, August 20-22, 2014.
- 156 D. Cerotti, M. Gribaudo, I. Kruger, P. Piazzolla, F. Seracini, G. Serazzi, "Throughput maximization with Multiclass Workloads and Resource Constraints", in B. Sericola, M. Telek, and H. Gabor (Eds.) *ASMTA'14, 21st Int.l Conf. on Analytical and Stochastic Modelling Techniques and Applications*, Budapest, 30 June- 2 July, LNCS 8499, Springer, pp.238-252, DOI: 10.1007/978-3-319-08219-6\_17, ISSN: 03029743 ISBN: 978-331908218-9, 2014.
- 155 S. Distefano, G. Serazzi, "Performance Driven WS Orchestration and Deployment in Service Oriented Infrastructure", *Journal of Grid Computing*, vol.12 n.2, pp.347-369, ISSN 1570-7873 DOI 10.1007/s10723-014-9293-8, June 2014.
- 154 L.Y. Chen, G. Serazzi, D. Ansaloni, E. Smirni, W. Binder, "What to expect when you are consolidating: effective prediction models of application performance on multicore", *CLUSTER COMPUTING Journal*, 17(1), 19-37, Springer, ISSN 1386-7857, DOI 10.1007/s10586-013-0273-8, 2014.
- 153 D. Cerotti, M. Gribaudo, P. Piazzolla, G. Serazzi, "Performance optimization with JMT: Java Modelling Tools", *VALUETOOLS 2013, 7th Int.Conf. on Performance Evaluation Methodologies and Tools*, Dec.10-12, Turin, Italy, pp.328-331, ISBN 978-193696848-0, DOI 10.4108/icst.valuetools.2013.254399, 2013.
- 152 D. Cerotti, M. Gribaudo, P. Piazzolla, G. Serazzi, "End-to-End Performance of Multi-core Systems in Cloud Environments", *EPEW 2013, 10th European Workshop on Performance Engineering*, Sept.16-17, Venice, Italy, in M.S. Balsamo, and W.J. Knottenbelt, Ed.s, LNCS 8168, Springer, pp.221-235, ISBN 978-3-642-40724-6, DOI 10.1007/978-3-642-40725-3\_17, 2013.
- 151 S. Spicuglia, M. Björkqvist, L.Y. Chen, G. Serazzi, W. Binder, E. Smirni, "On Load Balancing: A Mix-Aware Algorithm for Heterogeneous Systems", *ICPE'13 ACM/SPEC Int.l Conf. on Performance Engineering*, ACM Press, pp.71-76, Prague, Czech Republic, ISBN 978-145031636-1, DOI 10.1145/2479871.2479884, 2013.
- 150 P. Piazzolla, M. Gribaudo, G. Serazzi, "jBM – a CPU benchmarking tool for cloud environments", *SIMUTools'13, 6th International ICST Conference on Simulation Tools and Techniques*, pp.57-62, Cannes, France, ICST, Brussels, Belgium, ISBN 978-1-936968-76-3 978-1-4503-2464-9, DOI 10.4108/icst.simutools.2013.251751, March 2013.
- 149 D. Cerotti, M. Gribaudo, P. Piazzolla, G. Serazzi, "Flexible CPU provisioning in clouds: a new source of performance unpredictability", *QEST12 Ninth International Conference on Quantitative Evaluation of*

- Systems, pp.230-237, London, UK, Sept.18-20, 2012. DOI 10.1109/QEST.2012.23, ISBN: 9781467323468.
- 148 M. Gribaudo, P. Piazzolla, G. Serazzi, "Consolidation and Replication of VMs Matching Performance Objectives", *ASMTA'12, 19<sup>th</sup> Int.I Conf. on Analytical and Stochastic Modelling Techniques and Applications*, Grenoble, June 4-6, LNCS 7314, Springer, pp.106-120, DOI: 10.1007/978-3-642-30782-9\_8, 2012.
- 147 V. Ahuja, A. Banerjee, M. Farrens, D. Ghosal, G. Serazzi, "Introspective End-system Modeling to Optimize the Transfer Time of Rate Based Protocols", *20th Int.I ACM Symposium on High-Performance Parallel and Distributed Computing HPDC11*, ACM Digital Library, pp.61-72, San Jose, USA, June 8-11, ISBN 9781450305525, DOI 10.1145/1996130.1996140, 2011.
- 146 G. Casale, G. Serazzi, "Quantitative System Evaluation with Java Modeling Tool", *ICPE'11 - ACM-SPEC Int.I Conf. on Performance Engineering*, ACM Press, pp.449-454, Karlsruhe, Germany, March 14-16, ISBN 9781450305198, 2011.
- 145 G. Casale, M. Gribaudo, G. Serazzi, Tools for Performance Evaluation of Computer Systems: Historical Evolution and Perspectives, *PERFORM 2010: Workshop Performance Evaluation of Computer and Communication Systems, Milestones and Future Challenges*, LNCS 6821, Springer, pp.24-37, Vienna, ISBN 9783642255748, 2010.
- 144 P. Bellasi, A. Faisal, W. Fornaciari, G. Serazzi, Queueing network models for performance evaluation of ZigBee based Wireless Sensor Networks, *EPEW 2010: 7th European Performance Engineering Workshop*, Springer, LNCS, vol.6342, pp.147-159, Bertinoro, Italy, ISBN 9783642157837, 2010.
- 143 G. Casale, R.R. Muntz, G. Serazzi, Ed.s, Special Issue on Tools for Computer Performance Modeling and reliability Analysis, *ACM Performance Evaluation review*, vol.36, n.4, 2009.
- 142 M. Bertoli, G. Casale, G. Serazzi, JMT – Performance Engineering Tools for System Modeling, *ACM Performance Evaluation review*, vol.36, n.4, pp.10-15, 2009.
- 141 M. Bertoli, G. Casale, G. Serazzi., User-Friendly Approach to Capacity Planning Studies with Java Modelling Tools, *Int.I ICST Conf. on Simulation Tools and Techniques, SIMUTools09*, ACM Press, pp.1-9, ISBN 9789639799455, 2009.
- 140 S. Zanero, G. Serazzi, Unsupervised Learning Algorithms for Intrusion Detection. *In: IEEE Network Operations and Management Symposium 2008*, Salvador, Bahia, Brazil, pp.1043-1048, 2008. DOI: 10.1109/NOMS.2008.4575276.
- 139 G. Serazzi Ed., Performance Evaluation Modelling with JMT: learning by examples, *Technical Report, Politecnico di Milano - DEI*, TR 2008.09, 366 pp., 2008.
- 138 G. Casale, R.R. Muntz, G. Serazzi, Geometric Bounds: a Non-Iterative Analysis Technique for Closed Queueing Networks, *IEEE Transactions on Computers*, vol.57, no.6, pp.780-794, 2008.
- 137 H. Wang, K.C. Sevcik, G. Serazzi, S. Wang, The general form linearizer algorithms: A new family of approximate mean value analysis algorithms, *PEVA Performance Evaluation Journal*, Elsevier, vol.65, pp.129-151, 2008.
- 136 G. Serazzi, "Un Science Park a Bovisa", *Territorio*, Rivista del Dip. di Architettura e Pianificazione, Franco Angeli, n.40, pp.17-18, 2007.
- 135 M. Bertoli, G. Casale, G. Serazzi, The JMT Simulator for Performance Evaluation of Non-Product-Form Queueing Networks, *Proc. 40th Annual Simulation Symposium 2007 ANSS07*, IEEE Press, pp.3-10, 2007.
- 134 G. Serazzi, S. Zanero, Network access control, *Automazione Industriale*, vol.2, pp.34-35, Feb. 2007.
- 133 G. Serazzi, "Lo scouting di idee di impresa dalla ricerca", *Proc. Workshop Ricerca, spin-off, incubatori: strategie ed opportunità per le università italiane*, PNI Cube, Torino, pp. 29-30, 2007.
- 132 M. Bertoli, G. Casale, G. Serazzi, An Overview of the JMT Queueing Network Simulator, Technical Report, Politecnico di Milano - DEI, TR 2007.2, 25 pp., 2007.
- 131 G. Casale, R.R. Muntz, G. Serazzi, "A New Class of Non-Iterative Bounds for Closed Queueing Networks," *MASCOTS 2006: Int.I Symp. on Modeling, Analysis, and Simulation of Computer and Telecommunication Systems*, IEEE press, pp.69-76, 2006.
- 130 G. Serazzi, "Evoluzione degli incubatori universitari", *Proc. Workshop Start-up, Spin-off, Incubatori, Idee di business*, PNI Cube, Napoli, vol.1, pp.59-62, 2006.

- 129 M. Bertoli, G. Casale, G. Serazzi, "Java Modelling Tools: an Open Source Suite for Queueing Network Modelling and Workload Analysis", *Proc. Int.I Conf. on Quantitative Evaluation of Systems QEST 2006 Conf.*, Riverside, IEEE Press, pp.119-120, 2006.
- 128 G. Casale, G. Serazzi, Stabilization Techniques for load-dependent queueing networks algorithms, in *Modelling Computer Systems and Networks*, J.Barria Ed, Chapter 9, pp.127-141, Imperial College Press, 2006, (*invited book chapter*).
- 127 Serazzi G., University Incubators, *Politecnico, Journal of the Politecnico di Milano*, n.9, pp.18-31, 2005 (*invited paper*).
- 126 Casale G., Cremonesi P., Serazzi G., Zanero S., Performance Issues in Video Streaming Environments, *Proc. Int.I Workshop on Techniques, Methodologies and Tools for Performance Evaluation of Complex Systems*, Firb-Perf QEST 2005, Turin, pp.3-14, IEEE Press, 2005.
- 125 Cremonesi P., Muttoni L., Serazzi G., A characterization methodology for parallel systems benchmarks, *Proc. 17<sup>th</sup> Int.I Conf. on Parallel and Distributed Computing Systems PDCS-2004*, Int.I Society for Computers and Their Applications (ISCA), pp. 178-185, 2004
- 124 Casale G., Serazzi G., "Bottlenecks Identification in Multiclass Queueing Networks using Convex Polytopes", *Proc. IEEE / ACM MASCOTS*, IEEE Press, pp. 223-230, 2004, (*Best Student Paper Award*).
- 123 Serazzi G., Zanero S., Computer Virus Propagation Models, in Calzarossa M., Gelenbe E., Ed.s, *Performance Tools and Applications to Networked Systems: Revised Tutorial Lectures*, LNCS 2965, Springer, pp. 26-50, 2004.
- 122 Casale G., Serazzi G., Estimating Bottlenecks of Very Large Models, in *Performance Evaluation : Stories and Perspectives*, G.Kotsis ed., Vienna, Austria, Austrian Computing Society, vol.175, ISBN: 3-85403-175-0, pp. 89-104, 2003, (*invited paper*).
- 121 Ceri S., Gennaro C., Paraboschi S., Serazzi G., "Effective Scheduling of Detached Rules in Active Databases", *IEEE Transactions on Knowledge and Data Engineering*, vol.15, n.1, pp.2-13, 2003.
- 120 Pozzetti E., Vetland V., Rolia J., Serazzi G., "Characterizing the Communication Overhead of TCP/IP for Distributed Application Servers: A Case Study in Software Performance Engineering", *Technical Report DEI*, Politecnico di Milano, 2002.
- 119 Cremonesi P., Serazzi G., "End-to-End Performance of Web Services", *Proc. Int.I Conf. on Performance Evaluation Techniques, PERFORMANCE 2002*, LNCS 2459, Springer, pp.158-178, 2002.
- 118 Cremonesi P., Schweitzer P.J., Serazzi G., "A Unifying Framework for the Approximate Solution of Closed Multiclass Queueing Networks", *IEEE Transactions on Computers*, vol.51, n.12, pp.1423-1434, 2002.
- 117 Cianflone M., De Cesari M.C., Serazzi G., *Internet, l'Azienda e il Professionista*, I libri di @Iffa Il Sole 24ORE, vol.6, 57 pp., April 2002.
- 116 Rosti E., Serazzi G., Smirni E., Squillante M., "Models of Parallel Applications with Large Computation and I/O Requirements", *IEEE Transactions on Software Engineering*, vol.28, pp.286-307, March 2002.
- 115 Serazzi G., Treleaven P., *E-business start-up*, McGraw-Hill, 198 pp., 2001.
- 114 Bellettini C., Borghese P., Serazzi G., "Measurement of the Quality of Service of Web sites", *Proc. Int.I Conf. on Computer Measurement CECMG-Jahrestagung 2000*, Berlin, CMG Press, May 2000.
- 113 Cremonesi P., Rosti E., Serazzi G., "Xaba: Exact, Approximate, and Asymptotic Solvers for Multi-class Closed Queueing Networks", *Proc. 11th Int.I Conf. on Modelling Techniques and Tools for Computer Performance Eval.*, TOOLS 2000, Schaumburg, USA, LNCS 1786, Springer-Verlag, pp.71-85, 2000.
- 112 Litoiu M., Rolia J., Serazzi G., "Designing Process Replication and Activation: a Quantitative Approach", *IEEE Transactions on Software Engineering*, vol.26, n.12, pp.1168-1178, 2000.
- 111 Cremonesi P., Rosti E., Serazzi G., Smirni E., "Performance Evaluation of Parallel Systems", *Parallel Computing*, Elsevier, vol.25, pp.1677-1698, 1999.
- 110 Dowdy L., Rosti E., Serazzi G., Smirni E., "Scheduling Issues in High-Performance Computing", *ACM Performance Evaluation Review*, vol.44, n.4, pp.60-69, 1999.
- 109 Bellettini C., Borghese P., Serazzi G., "Characterization of the performance of Web servers", *Proc. 13th Int.I Conf. on Computer Measurement Euro-CMG 99*, CMG Press, pp.1-10, May 1999.

- 108 Manzoni P., Cremonesi P., Serazzi G., "Workload Models of VBR Video Traffic and their Use in Resource Allocation Policies", *IEEE/ACM Transactions on Networking*, vol.7, n.3, pp.387-396, June 1999.
- 107 Smirni E., Rosti E., Dowdy L., Serazzi G., "A methodology for the evaluation of multiprocessor non-preemptive allocation policies", *Journal of Systems Architecture*, Elsevier, vol.44, pp.703-721, June 1998.
- 106 Rosti E., Serazzi G., Smirni E., Squillante M., "The Impact of I/O on Program Behavior and Parallel Scheduling", *Proc. of ACM - SIGMETRICS Int'l Conf. on Modelling and Performance Evaluation of Computer Systems*, ACM Press, pp.56-65, Madison, 1998.
- 105 Litoiu M., Rolia J., Serazzi G., "Designing Process Replication and Threading Policies: a Quantitative Approach", *Proc. 10th Int'l Conf. on Modelling Techniques and Tools for Computer Performance Evaluation TOOLS'98*, Palma di Maiorca, LNCS 1469, Springer, pp.15-26, 1998.
- 104 Schweitzer P.J., Serazzi G., Broglia M., "A Queue-Shift Approximation Technique for Product-Form Queueing Networks", *Proc. 10th Int'l Conf. on Modelling Techniques and Tools for Computer Performance Evaluation TOOLS'98*, Palma di Maiorca, LNCS, vol.1469, Springer, pp.267-279, 1998.
- 103 Rosti E., Smirni E., Dowdy L., Serazzi G., Sevcik K., "Processor Saving Scheduling Policies for Multiprocessor Systems", *IEEE Transactions on Computers*, vol.47, no.2, pp.178-189, 1998.
- 102 Manzoni P., Serazzi G., "Augmenting Best-Effort Traffic Transmission Performance by Optimizing Resource Allocation Policies", *Int'l Conf. on Performance and Control of Network Systems*, SPIE Proc., Dallas, vol.3231, pp.492-501, 1997.
- 101 Balbo G., Serazzi G., "Asymptotic Analysis of Multiclass Closed Queueing Networks: Multiple Bottlenecks", *Performance Evaluation Journal*, Elsevier, vol.30, pp.115-152, 1997.
- 100 Rosti E., Schiavoni F., Serazzi G., "Queueing Network Models with Two Classes of Customers", *Fifth Int'l Symposium on Modelling, Analysis, and Simulation of Computer and Telecommunication Systems, MASCOTS 97*, IEEE CS Press, Haifa, Israel, pp.229-234, 1997.
- 99 Balbo G., Serazzi G., "Asymptotic Analysis of Multiclass Closed Queueing Networks: Common Bottlenecks", *Performance Evaluation Journal*, Elsevier, vol.26, pp.51-72, 1996.
- 98 Manzoni P., Serazzi G., "Mobile Communication and Continuous-Media Data Traffic Integration in Internet", *Fifth Annual Workshop on Information Technologies and Systems, WITS'95*, Nijenrode, The Netherlands, Aachener Informatik - Berichte, pp.12-21, 1995.
- 97 Rosti E., Serazzi G., Scheduling, in Balbo G. and Vanneschi M. Eds.: *General Purpose Parallel Computers: Architectures, Programming Environments, and Tools*, Chapter 19, pp.443-465, ETS Press, Pisa, 1995.
- 96 Nazzarelli M.R., Serazzi G., Parallel Operating Systems, in Balbo G. and Vanneschi M. Eds.: *General Purpose Parallel Computers: Architectures, Programming Environments, and Tools*, Chapter 16, pp.387-408, ETS Press, Pisa, 1995.
- 95 Smirni E., Rosti E., Serazzi G., Dowdy L.W., Sevcik K.C., "Performance gains from leaving idle processors in multiprocessor systems", *Int'l Conf. on Parallel Processing, Oconomowoc*, Wisconsin, vol.III, pp.203-210, CRC Press, 1995.
- 94 Rosti E., Smirni E., Serazzi G., Dowdy L.W., "Analysis of non-work-conserving processor partitioning policies", LNCS, "Job Scheduling Strategies for Parallel Processing", Springer, vol.949, pp.165-181, 1995.
- 93 Manzoni P., Ghosal D., Serazzi G., "Impact of Mobility on TCP/IP: An Integrated Performance Study", *IEEE Journal on Selected Areas in Communications, Special Issue on Mobile and Wireless Computing Networks*, vol. SAC-13, 5, pp.858-867, June 1995.
- 92 Hertzberger B., Serazzi G., Eds., *High-Performance Computing and Networking*, Lecture Notes in Computer Science, Springer, vol.919, 957 pp., 1995.
- 91 Hills G., Rolia J., Serazzi G., "Performance Engineering of Distributed Software Process Architectures", *Quantitative Evaluation of Computing and Communication Systems TOOLS'95*, Heidelberg, LNCS, Springer, vol.977, pp.357-371, 1995.
- 90 Pozzetti E., Vetland V., Rolia J., Serazzi G., "Characterizing the Resource Demands of TCP/IP", *Int'l Conf. on High Performance Computing and Networking*, LNCS 919, Springer, pp. 79-85, 1995.

- 89 Manzoni P., Ghosal D., Serazzi G., "A Simulation Study of the Impact of Mobility on TCP/IP", *Int'l Conf. on Network Protocols*, Boston, IEEE Press, pp.196-203, 1994.
- 88 Rosti E., Serazzi G., "Workload characterization for performance engineering of parallel applications", *Euromicro Workshop on Parallel and Distributed Processing*, Malaga, IEEE Press, pp.457-462, 1994.
- 87 Rosti E., Smirni E., Dowdy L.W., Serazzi G., Carlson B.M., "Robust Partitioning Policies of Multiprocessor Systems", *Performance Evaluation Journal, Special issue on Multiprocessor Systems*, Elsevier, vol.19, pp.141-165, 1994.
- 86 Calzarossa M., Serazzi G., "Construction and Use of Multiclass Workload Models", *Performance Evaluation Journal*, Elsevier, vol. 19, pp.341-352, 1994.
- 85 Schweitzer P.J., Serazzi G., Broglia M., "A Survey of Bottleneck Analysis in Closed Networks of Queues", *Int'l Conf. on Performance Evaluation of Computer and Communication Systems*, Springer, LNCS 729, pp.481-508, 1993.
- 84 Calzarossa M., Serazzi G., "Workload Characterization: A survey", *IEEE Proceedings, Special Issue on Computer Performance Evaluation*, pp. 1136-1150, August 1993.
- 83 Bruschi D., Gobbo S., Lenzi P., Pozzetti E., Serazzi G., "A user-friendly environment for parallel programming", *Euromicro Workshop on Parallel and Distributed Processing*, IEEE Press, pp.451-456, 1993.
- 82 Balbo G., Serazzi G., Eds, *Computer Performance Evaluation - Modelling Techniques and Tools*, 470 pp., Elsevier Publ. B.V., 1992.
- 81 Lenzi P., Serazzi G., "ParMon: Parallel Monitor", *Progetto Finalizzato CNR, Rapporto Tecnico 3/95*, 1992.
- 80 Italiani M., Serazzi G., *Informatica Generale*, Volume 3, 244 pp., Etas Libri, 1992.
- 79 Italiani M., Serazzi G., *Informatica Generale*, Volume 2, 344 pp., Etas Libri, 1992.
- 78 Italiani M., Serazzi G., *Informatica Generale*, Volume 1, 376 pp., Etas Libri, 1992.
- 77 Bruschi D., Gobbo S., Lenzi P., Pozzetti E., Serazzi G., "Un ambiente per la programmazione parallela", *AICA Workshop "Elaborazione Parallela: Ricerca ed Applicazioni"*, pp.77-94, Rome, February 1992.
- 76 Lenzi P., Rosti E., Serazzi G., "Experimental evaluation of internal sorting algorithms on Transputers", in M.Becker et al. Eds.: *Proc. Int'l Conf. TRANSPUTERS 92*, Arc et Senans, IOS Press, pp.210-227, 1992.
- 75 Schweitzer P.J., Serazzi G., Broglia M., "A Fixed Point Methodology for Exact Mean Value Analysis with Large Populations", *University of Rochester, Quantitative Methods Working Paper Series No.QM91*, October 1991.
- 74 Tripathi S., Serazzi G., Ghosal D., "Processor Scheduling in Multiprocessor Systems", *Proc. Int'l ACPC Conf. on Parallel Computation*, Salzburg, LNCS 591, Springer, pp.207-224, 1991 (invited paper).
- 73 Rosti E., Serazzi G., Lenzi P., "Characterization of Numerical Algorithms for Distributed Memory Multiprocessors", *Progetto Fin. CNR, Tech.Rep. 3/71*, 1991.
- 72 Ghosal D., Serazzi G., Tripathi S.K., "Processor Working Set and its Use in Scheduling Multiprocessor Systems", *IEEE Transactions on Software Engineering*, vol. SE-17, pp.443-453, 1991.
- 71 Ghosal D., Tripathi S.K., Serazzi G., Noh S.H., Lenzi P., Agrawala A.K., "Characterizing Parallel Program Behavior: An Experimental Study", *Computer Science Tech. Report, UMIACS-TR-89-95*, University of Maryland, 1990.
- 70 Calzarossa M., Massari L., Serazzi G., "The Design of the Workload Analyser Tool", *ESPRIT - IMSE Project n.2143, Report D4.2 - 1 Vers.1*, 1990.
- 69 Calzarossa M., Massari L., Serazzi G., "The Workload Analyser Tool User Interface", *ESPRIT - IMSE Project n.2143, Report R4.2-2 Vers.1*, 1990.
- 68 Lenzi P., Rosti E., Sassi P., Serazzi G., "Analisi di algoritmi non numerici in ambiente MIMD", *AICA Workshop "Valutazione delle Prestazioni di Sistemi Paralleli"*, Milan, pp.124-132, 1990.
- 67 Italiani M., Serazzi G., *Elementi di Informatica*, Etas Libri, 556 pp., Seconda Edizione 1989.
- 66 Ghosal D., Serazzi G., Tripathi S.K., "The Concept of Processor Working Set for Allocation Strategies in Multiprogrammed Parallel Systems", *Computer Science Tech. Report, UMIACS-TR-89-95*, University of Maryland, 1989.

- 65 Portman K., Rosti E., Serazzi G., "Analysis of Cost Functions in Multiprocessor Systems", *AICA Workshop "Programmazione Parallela"*, Bologna, pp. 321-329, 1989.
- 64 Rosti E., Serazzi G., "On Instability of Workload Parameters in Unix Environments", in *Proc. Int'l Symposium on Computer and Information Sciences*, pp. 587-599, Izmir, Turkey, 1988.
- 63 Calzarossa M., Serazzi G., "TEL - a versatile Tool for Emulating system Load", in *Modelling Techniques and Tools for Computer Performance Evaluation*, pp.151-170, Plenum Press, 1988.
- 62 Calzarossa M., Serazzi G., Workload characterization for Supercomputers, in *Martin J.L. Ed.: Performance Evaluation of Supercomputers, Chapter 3*, pp.283-315, Elsevier, 1988 (*invited paper*).
- 61 Calzarossa M., Haring G., Serazzi G., "Workload Modeling for Computer networks", *Architektur und Betrieb von Rechensystemen, 10GI/ITG Proc.*, Paderborn, Informatik-Fachberichte vol. 168, pp.324-339, Springer-Verlag 1988.
- 60 Serazzi G., Calzarossa M., Comincioli V., Haring G., Italiani M., "Workload characterization and self-tuning scheduling algorithms", *HUSPI Project Progress Report*, vol. 11, pp.5-14, Pavia, 1987.
- 59 Calzarossa M., Comincioli V., Meloni G., Serazzi G., "Experimental studies of the performance of a supercomputer", *Proc. Int'l Conf. on Supercomputing*, Santa Clara, vol. III, pp.343-349, 1987.
- 58 Serazzi G., "Computer Systems : Performance Measurement", *Systems & Control Encyclopedia*, Pergamon-Press, pp. 745-751, 1987 (*invited paper*).
- 57 Balbo G., Serazzi G., "Multi-class product form closed queueing networks under heavy loading conditions", in *Pujolle G. Ed.: Modelling Techniques and Performance Evaluation*, Elsevier, pp. 257-269, 1987.
- 56 Calzarossa M., Comincioli V., Quaroni P., Serazzi G., "Exploratory analysis of an interactive workload", *Proc. CMG Int'l Conf. on Management and Performance Evaluation of Computer Systems*, pp.744-749, Las Vegas, 1986.
- 55 Bonelli R., Italiani M., Serazzi G., *Informatica*, 564 pp., Etas Libri, Milan, 1986.
- 54 Serazzi G. Ed., *Workload Characterization of Computer Systems and Computer Networks*, 178 pp., Elsevier, 1986.
- 53 Calzarossa M., Serazzi G., "A Performance-Oriented Workload Model", in *Serazzi G. Ed.: Workload Characterization of Computer Systems and Computer Networks*, pp.73-90, Elsevier, 1986.
- 52 Serazzi G., "Workload Modeling Techniques", in *Modelling Techniques and Tools for Performance Analysis*, pp.13-27, Elsevier, 1986 (*invited paper*).
- 51 Calzarossa M., Serazzi G., "A software tool for the workload analysis", in *Modelling Techniques and Tools for Performance Analysis*, pp. 165-180, Elsevier, 1986.
- 50 Calzarossa M., Italiani M., Serazzi G., "A workload model representative of static and dynamic characteristics", *Acta Informatica*, 23, pp.255-266, 1986.
- 49 Serazzi G., Comincioli V., Gelenbe E., Italiani M., Calzarossa M., "Workload characterization and self-tuning scheduling algorithms", *HUSPI Project Progress Report*, vol. 10, pp. 42-54, Pavia, 1985.
- 48 Calzarossa M., Gelenbe E., Serazzi G., "The deterministic flows model: parameter identification", in *Int'l Conf. on Measurement, Modelling and Evaluation of Computer Systems*, Informatik- Fachberichte, Springer-Verlag, 110, pp.317-331, 1985.
- 47 Calzarossa M., Italiani M., Serazzi G., "Un approccio per la realizzazione di modelli eseguibili del carico", *Atti Convegno Nazionale AICA*, pp.63-78, Firenze, 1985.
- 46 Serazzi G., "Una metodologia per la caratterizzazione del carico di sistemi batch ed interattivi", in *Controllo e previsione delle prestazioni e della capacità dei sistemi informatici, Progetto Finalizzato Informatica CNR*, pp.92-135, Roma, 1985.
- 45 Serazzi G., "Concetti generali di caratterizzazione del carico", *Atti Seminario Tecniche per il controllo delle risorse nei centri di elaborazione dati*, pp.18-32, Università di Modena, 1985.
- 44 Calzarossa M., Serazzi G., "A characterization of the variation in time of workload arrival patterns", *IEEE Transactions on Computers*, vol. C-34, pp.156-162, 1985.
- 43 Calzarossa M., Rossi G.P., Serazzi G., Boretti D., "A tool for performance comparisons of Unix-based systems", *CMG XV Int'l Conf. on Computer Systems Performance Evaluation*, San Francisco, pp.337-342, 1984.

- 42 Serazzi G., Comincioli V., Gelenbe E., Italiani M., Calzarossa M., Zatti S., "Workload characterization and self-tuning scheduling algorithms", *HUSPI Project Progress Report*, vol. 9, pp. 31-46, Pavia, 1984.
- 41 Calzarossa M., Gelenbe E., Serazzi G., "Controllo delle prestazioni attraverso modelli a flussi deterministici", *Atti Convegno Nazionale AICA*, pp.343-358, Roma, 1984.
- 40 Serazzi G., Calzarossa M., "Adaptive optimization of a system's load", *IEEE Transactions on Software Engineering*, vol. SE-10, pp.837-845, 1984.
- 39 Serazzi G., "A bottleneck driven scheduler", in *Modelling and Performance Evaluation Methodology, Lecture Notes in Control and Information Sciences*, Springer-Verlag, vol. 60, pp. 335-350, 1984, (*invited paper*).
- 38 Italiani M., Serazzi G., *Introduzione all'informatica*, 121 pp., Etas Libri, Milan, 1983.
- 37 Serazzi G., Italiani M., Comincioli V., Calzarossa M., "Workload characterization and self-tuning scheduling algorithms", *HUSPI Project Progress Report*, vol. 8, pp. 197-207, Pavia, 1983.
- 36 Baiocchi C., Capelo A.C., Comincioli V., Serazzi G., "A mathematical model for transient analysis of computer systems", *Performance Evaluation Journal*, Elsevier, vol. 3, pp. 247-264, 1983.
- 35 Ferrari D., Serazzi G., Zeigner A., *Measurement and Tuning of Computer Systems*, 523 pp., Prentice-Hall, Englewood Cliffs, NJ, 1983.
- 34 Brambilla A., Calzarossa M., Mapelli P., Serazzi G., "La valutazione delle prestazioni presso i centri di calcolo universitari: un esempio", *Atti Convegno "L'Università e l'Evoluzione delle Tecnologie Informatiche"*, pp.23.1-23.5, Milan, 1983.
- 33 Italiani M., Serazzi G., Mazzoleni M., "Valutazione delle prestazioni dei programmi", *HUSPI Project Progress Report*, vol. 7, pp.201-214, Pavia, 1982.
- 32 Serazzi G., Calzarossa M., Comincioli V., Italiani M., "Workload characterization and self-tuning scheduling algorithms", *HUSPI Project Progress Report*, vol. 7, pp. 221-238, Pavia, 1982.
- 31 Calzarossa M., Italiani M., Serazzi G., "Un modello per la simulazione dei mixes di programmi", *Atti Convegno Nazionale AICA*, pp.581-584, Padova, Oct. 1982.
- 30 Bolzoni M.L., Calzarossa M., Mapelli P., Serazzi G., "A package for the implementation of static workload models", *ACM SIGMETRICS Int'l Conf. on Measurement and Modeling of Computer Systems*, pp. 58-67, Seattle, 1982.
- 29 Comincioli V., Periti P.F., Serazzi G., "Mathematical modeling of some problems concerning the immune response and the biology of neoplasia", *Academic Hawk*, CCCP, pp. 35-50, 1982.
- 28 Serazzi G., "A functional and resource-oriented procedure for workload modeling", in *Proc. Int'l Conf PERFORMANCE '81*, pp.345-361, Elsevier, Nov. 1981.
- 27 Serazzi G., "La caratterizzazione del carico", *Rivista di Informatica*, vol. XI, AICA, pp. 317-324, 1981.
- 26 Bolzoni M.L., Mapelli P., Serazzi G., "A methodology for the classification of batch and interactive workload components", *Proc. Int'l Conf. on Computer Measurement*, pp.190-199, Copenhagen, 1981.
- 25 Bolzoni M.L., Mapelli P., Mattasoglio A., Serazzi G., "A resource-oriented workload characterization", *III Int'l Symposium "Computer at the University"*, pp.284.1-284.11, Cavtat, 1981.
- 24 Serazzi G., "The dynamic behavior of computer systems", in *Experimental Computer Performance Evaluation*, pp.127-163, Elsevier, 1981 (*invited paper*).
- 23 Bonelli R., Italiani M., Serazzi G., *Informatica*, Etas Libri, 446 pp., Milan, 1980.
- 22 Bolzoni M.L., Meloni G., Serazzi G., "Analysis and system tuning: an experience in a University installation", *Proc. 7th Int'l Conf. on Computer Measurement*, pp.249-257, Parigi, 1979.
- 21 Serazzi G., Brambilla A., "Analytically-based prediction of performance improvements due to memory expansion", *Proc. 7th Int'l Conf. on Computer Measurement*, pp.167-178, Parigi, 1979.
- 20 Ferrari D., Serazzi G., Zeigner A., "Analisi delle strozzature e ottimizzazione dei programmi utenti", *Management e Informatica*, n.5, pp.311-315, 1979.
- 19 Meloni G., Serazzi G., "Performance evaluation on-line", *Informatica e Documentazione*, vol. 6, pp.57-64, 1979.



- 18 Ferrari D., Serazzi G., Zeigner A., *Le prestazioni degli elaboratori elettronici - Misura, Valutazione, Ottimizzazione*, 535 pp., Franco Angeli, Milan, 1979.
- 17 Comincioli V., Nespoli L., Periti P.F., Serazzi G., "A mathematical model of the two signal theory for T-B cells cooperation", *Lecture Notes in Biomathematics*, n.32, Springer-Verlag pp.175-189, 1979.
- 16 Comodi I., Italiani M., Serazzi G., "LANEF: A Language for Finite Elements Method", *Pubblicazioni IAN-CNR* n.202, Pavia, 1979.
- 15 Ferrari D., Serazzi G., Zeigner A., "Le prestazioni degli elaboratori elettronici", *Quaderni di Informatica*, vol. 5, pp. 3-11, 1978.
- 14 Comincioli V., Nespoli L., Periti P., Serazzi G., Ugazio A.G., "Simulazione mediante modello matematico della risposta immunitaria anticorpale", *HUSPI Project Progress Report*, pp.173-181, Pavia, 1978.
- 13 Comodi I., Italiani M., Serazzi G., "Il linguaggio LANEF: caratteristiche generali e sottoinsieme per la triangolazione automatica", *Pubblicazioni IAN-CNR* n.161, Pavia, 1977.
- 12 Comincioli V., Guerri L., Serazzi G., Ugazio A.G., "A mathematical model of T-B cells cooperation in the primary immune response", *Proc. 1st Mediterranean Conf. on Medical and Biological Engineering*, vol. 6.9-6.11, Sorrento, 1977.
- 11 Serazzi G., "La valutazione delle prestazioni dei sistemi informatici", *Rivista di Informatica*, vol. 8, AICA, pp.175-191, 1978.
- 10 Italiani M., Serazzi G., "Un approccio generalizzato per alcuni linguaggi problem-oriented", *Atti Convegno Nazionale AICA*, pp.275-285, Milan, 1976.
- 9 Rizzi M.C., Serazzi G., Ugazio A.G., "Approccio allo studio della risposta anticorpale mediante un modello dinamico", *Atti convegno su l'uso dei modelli nella diagnostica medica*, pp.516-526, Pavia, 1976.
- 8 Serazzi G., "A methodology for performance evaluation by a software monitor and a simulator", *Proc. Int'l Seminar on Models and Measures for Computer Systems*, INRIA, pp.270-290, 1975.
- 7 Italiani M., Serazzi G., "Estensione del sistema didattico CND mediante un macroassemblatore", *Pubblicazioni IAN-CNR* n.90, Pavia, 1974.
- 6 Serazzi G., "Una banca dei dati per lo studio dei nuovi schemi terapeutici nella leucosi infantile", *Rivista di Informatica*, vol. 5, AICA, pp.55-73, 1974.
- 5 Italiani M., Serazzi G., *Elementi di Informatica*, Etas Kompass, 564 pp., 1973.
- 4 Italiani M., Serazzi G., "Il sistema CND per l'insegnamento della programmazione", *Pubblicazioni IAN-CNR* n.35, Pavia, 1972.
- 3 Italiani M., Serazzi G., *La programmazione del calcolatore CND*, Istituto di Matematica, Università di Pavia, June 1971.
- 2 Serazzi G. et al., "Un corso Fortran programmato mediante elaboratore elettronico", *Pubblicazioni IAN-CNR* n.21, Pavia, 1971.
- 1 Italiani M., Serazzi G., "Il problema delle esercitazioni nell'insegnamento CAI di linguaggi simbolici di programmazione", *XVIII Congresso Scientifico per l'Elettronica*, vol. C-10, pp.97-106, Roma, 1971.