

Balázs Csanád Csáji's Publication List

April 15, 2011

1. Journal Articles

1. Monostori, L.; Csáji, B. Cs.; Kádár, B.; Pfeiffer, A.; Ilie-Zudor, E.; Kemény, Zs.; Szathmári, M.: Towards Adaptive and Digital Manufacturing, *Annual Reviews in Control* (ARC), IFAC and Elsevier, Vol. 34, 2010, pp. 118–128
 - Impact factor: 1.886
 - Independent citation(s): 1
2. Csáji, B. Cs.; Monostori, L.: Adaptive Approaches to Distributed Resource Allocation, *Production Systems and Information Engineering*, Vol. 5, 2009, pp. 3–18
3. Kemény, Zs.; Csáji, B. Cs.; Viharos, Zs. J.: Optimization of Timing Parameters for Vision-Based Monitoring of Automated Production Lines, *International Journal of Factory Automation, Robotics and Soft Computing*, 2009, pp. 30–38.
4. Csáji, B. Cs.; Monostori, L.: Value Function Based Reinforcement Learning in Changing Markovian Environments, *Journal of Machine Learning Research* (JMLR), MIT Press, Vol. 9, 2008, pp. 1679–1709.
 - Impact factor: 3.116
 - Independent citation(s): 6
5. Csáji, B. Cs.; Monostori, L.: Adaptive Stochastic Resource Control: A Machine Learning Approach, *Journal of Artificial Intelligence Research* (JAIR), AI Access Foundation, AAAI Press, Vol. 32, 2008, pp. 453–486.
 - Impact factor: 1.611
 - Independent citation(s): 2
6. Schuh, G.; Monostori, L.; Csáji, B. Cs.; Döring, S.: Complexity-Based Modeling of Reconfigurable Collaborations in Production Industry, *Annals of the CIRP – Manufacturing Technology*, Elsevier, Vol. 57., No. 1., 2008, pp. 445–450.
 - Impact factor: 1.123
 - Independent citation(s): 6
7. Argyros, A.; Bártfai, G.; Eitzinger, Ch.; Kemény, Zs.; Csáji, B. Cs.; Kék, L.; Lourakis, M.; Reisner, W.; Sandrisser, W.; Sarmis, T.; Umgeher, G.; Viharos, Zs. J.: Smart Sensor Based Vision System for Automated Processes, *International Journal of Factory Automation, Robotics and Soft Computing*, Thomson Scientific Journal, Vol. 3., 2007, pp. 118–123.
8. Csáji, B. Cs.; Monostori, L.; Kádár, B.: Reinforcement Learning in a Distributed Market-Based Production Control System, *Advanced Engineering Informatics* (formerly known as *Journal of Artificial Intelligence in Engineering*), Elsevier, Vol. 20, No. 3, July 2006, pp. 279–288.
 - Impact factor: 1.295
 - Independent citation(s): 6

9. Monostori, L.; Csáji, B. Cs.: Stochastic Dynamic Production Control by Neurodynamic Programming, *Annals of the CIRP – Manufacturing Technology*, Vol. 55, No. 1, 2006, pp. 473–478.
 - Impact factor: 0.989
 - Independent citation(s): 3
10. Kádár, B.; Monostori, L.; Csáji, B. Cs.: Adaptive Approaches to Increase the Performance of Production Control Systems, *CIRP Journal of Manufacturing Systems*, Vol. 34, No. 1, 2005, pp. 33–43.
 - Independent citation(s): 5
11. Monostori, L.; Csáji, B. Cs.; Kádár, B.: Adaptation and Learning in Distributed Production Control, *Annals of the CIRP – Manufacturing Technology*, Vol. 53, No. 1, 2004, pp. 349–352.
 - Impact factor: 0.973
 - Independent citation(s): 11

2. Book Chapters

12. Csáji, B. Cs.; Jungers, R. M.; Blondel, V. D.: PageRank Optimization in Polynomial Time by Stochastic Shortest Path Reformulation, *Proceedings of the 21st International Conference on Algorithmic Learning Theory (ALT 2010)*, Lecture Notes in Computer Science, Vol. 6331, Springer, Canberra, Australia, October 6-8, 2010, pp. 89–103
13. Kemény, Zs.; Csáji, B. Cs.; Viharos, Zs. J.: Optimization of Timing Parameters for Vision-Based Monitoring of Automated Production Lines, In Book: *Recent Advances in Control Systems, Robotics and Automation*, Volume 1., Editor: Salvatore Pennacchio, International Society for Advanced Research, 2009, pages 123–131.
14. Argyros, A.; Bártfai, G.; Eitzinger, Ch.; Kemény, Zs.; Csáji, B. Cs.; Kék, L.; Lourakis, M.; Reisner, W.; Sandrisser, W.; Sarmis, T.; Umgeher, G.; Viharos, Zs. J.: Smart Sensor Based Vision System for Automated Processes, In Book: *Emerging Technologies, Robotics and Control Systems*, Editor: Salvatore Pennacchio, Volume 2., International Society for Advanced Research, 2007, pages 24–29.
15. Csáji, B. Cs.; Monostori, L.: Stochastic Reactive Production Scheduling by Multi-Agent Based Asynchronous Approximate Dynamic Programming, Lecture Notes in Computer Science; 3690: *Lecture Notes in Artificial Intelligence*, Proceedings of the 4th International Central and Eastern European Conference on Multi-Agent Systems (CEEMAS), September 15–17, Budapest, Hungary, 2005, pp. 388–397.
 - Impact factor: 0.302
 - Independent citation(s): 8
16. Csáji, B. Cs.; Küng, J.; Palkoska, J.; Wagner, R.: On the Automation of Similarity Information Maintenance in Flexible Query Answering Systems; *Lecture Notes in Computer Science*, Vol. 3180: Proceedings of the 15th International Conference on Database and Expert Systems Applications, (DEXA), 2004 pp. 130–140.
 - Impact factor: 0.513

17. Csáji, B. Cs.; Kádár, B.; Monostori, L.: Improving Multi-Agent Based Scheduling by Neurodynamic Programming, *Lecture Notes in Computer Science*; 2744: *Lecture Notes in Artificial Intelligence*, Proceedings of the 1st International Conference on Holonic and Multi-Agent Systems for Manufacturing (HoloMAS), 2003, pp. 110–123.
 - Impact factor: 0.251
 - Independent citation(s): 11

3. Conference and Workshop Papers

18. Ivanov, T.; Csáji, B. Cs.: Reproducing Kernels Preserving Algebraic Structure: A Duality Approach, *Proceedings of the 19th International Symposium on Mathematical Theory of Networks and Systems (MTNS 2010)*, Budapest, Hungary, July 5–9, 2010
19. Scherrer-Rathje, M.; Arnoscht, J.; Egri, P.; Braun, E.; Csáji, B. Cs.; Schuh, G.: A Generic Model to Handle Complexity in Collaborative Networks, *Proceedings of the Portland International Conference on Management of Engineering and Technology - Technology Management in the Age of Fundamental Change*, August 2–6, 2009, Portland, Oregon, USA, pp. 271–287. (ISBN: 978-1-890843-20-5)
20. Scherrer-Rathje, M.; Egri, P.; Dring, S.; Csáji, B. Cs.; Braun, E.; Schuh, G.: A Multi-Matrix Approach to Handle Complexity in Collaborative Networks, *Proceedings of the 16th International EurOMA Conference*, Göteborg, Sweden, June 14–17, 2009
21. Csáji, B. Cs.; Monostori, L.: A Complexity Model for Networks of Collaborating Enterprises, *Proceedings of the 17th World Congress of IFAC (International Federation of Automatic Control)*, July 6–11, 2008; Seoul, Korea, pp. 13833–13838.
 - Independent citation(s): 1
22. Monostori, L.; Csáji, B. Cs.: Complex Adaptive Systems (CAS) Approach to Production Systems and Organizations, in: *Manufacturing Systems and Technologies for the New Frontier, The 41th CIRP International Seminar on Manufacturing Systems*, May 26–28, 2008, Tokyo, Japan, Springer, Edited by: Mitsuishi, M.; Ueda, K.; Kimura, F., 2008, pp. 19–24. (invited, key-note paper)
 - Independent citation(s): 1
23. Csáji, B. Cs.; Monostori, L.: Modeling Networks of Collaborating Enterprises as Complex Systems, *Preprints of the IFAC Workshop on Modelling, Management and Control (MIM'07)*, November 14–16, 2007, Budapest, Hungary, pp. 7–12.
24. Monostori, L.; Csáji, B. Cs.: Production Structures as Complex Adaptive Systems, *Proceedings of the 40th CIRP International Seminar on Manufacturing Systems*, May 30 – June 1, 2007, Liverpool, United Kingdom.
 - Independent citation(s): 3
25. Csáji, B. Cs.; Monostori, L.: Adaptive Sampling Based Large-Scale Stochastic Resource Control, *Proceedings of the 21st National Conference on Artificial Intelligence (AAAI-06)*, July 16–20, 2006, Boston, Massachusetts, pp. 815–820.
 - Independent citation(s): 2

26. Csáji, B. Cs.; Monostori, L.: Adaptive Algorithms in Distributed Resource Allocation, Proceedings of the *6th International Workshop on Emergent Synthesis*, (IWES), Kashiwa, The University of Tokyo, Japan, August 18–19, 2006. pp. 69–75.
- Independent citation(s): 10
27. Viharos, Zs. J.; Kádár, B.; Monostori, L.; Kemny, Zs.; Csáji, B. Cs.; Pfeiffer, A.; Karnok D.: Integration of Production-, Quality- and Process Monitoring for Agile Manufacturing, Proceedings of the *13rd IMEKO World Congress, Metrology for a Sustainable Development*, September, 17–22, Rio de Janeiro, Brazil, 2006
28. Pfeiffer, A.; Kádár, B.; Csáji, B. Cs.; Monostori, L.: Simulation Supported Analysis of a Dynamic Rescheduling System, in: *Manufacturing, Modelling, Management and Control*, Edited by Chryssolouris, G. and Mourtzis, D., 2005, Elsevier, pp. 25–30.
29. Csáji, B. Cs.; Monostori, L.: Stochastic Approximate Scheduling by Neurodynamic Learning, *16th IFAC World Congress*, July 3–8, 2005, Prague, Czech Republic.
- Independent citation(s): 2
30. Gilles, M.; Ballin, D.; Csáji, B. Cs.: Efficient Clothing Fitting from Data; *12nd International Conference in Central Europe on Computer Graphics, Visualization and Computer Vision*, February 2–6, Plzen, Czech Republic, 2004, pp. 129–136.
- Independent citation(s): 2
31. Csáji, B. Cs.: In Defense of the Symmetry of True and False; Proceedings of the *6th Interdisciplinary Symmetry Congress and Exhibition of ISIS* (International Society for the Interdisciplinary Study of Symmetry), *Symmetry: Art & Science*, October 22–29, Tihany, Hungary, 2004, pp. 46–49.
32. Pfeiffer, A.; Kádár, B.; Csáji, B. Cs.; Monostori, L.: Simulation Supported Analysis of a Dynamic Rescheduling System, *IFAC Symposium on Manufacturing, Modelling, Management and Control*, October 21–22, 2004, Athens, Greece, pp. 24–29.
33. Csáji, B. Cs.; Kádár, B.; Monostori, L.; Pfeiffer, A.: Simulation Supported Agent-Based Adaptive Production Scheduling, *International IMS Forum; Global Challenges in Manufacturing*, May 17–19, 2004, Cernobbio, Lake Como, Italy, pp. 658–665.
34. Csáji, B. Cs.; Monostori, L.; Kádár, B.: Learning and Cooperation in a Distributed Market-Based Production Control System, Proceedings of the *5th International Workshop on Emergent Synthesis* (IWES), May 24–25, Budapest, 2004, pp. 109–117.
- Independent citation(s): 14
35. Kádár, B.; Monostori, L.; Csáji, B. Cs.: Adaptive Approaches to Increase the Performance of Production Control Systems, Proceedings of the *36th CIRP International Seminar on Manufacturing Systems, Progress in Virtual Manufacturing Systems*, June 3–5, 2003, Saarbrcken, Germany, pp. 305–312.
- Independent citation(s): 5
36. Monostori, L.; Kádár, B.; Csáji, B. Cs.: The Role of Adaptive Agents in Distributed Manufacturing, Proceedings of the *4th International Workshop on Emergent Synthesis*

(IWES'02), May 9–10, 2002, Kobe, Japan, pp. 135–142.

- Independent citation(s): 2

4. Other (Non-English)

37. Egri, P.; Csáji, B. Cs.; Kemény, Zs.; Monostori, L.; Váncza, J.: Komplexität der Bedarfsprognosen und ihre Wirkungen in kooperativen Logistiknetzwerken; *10th Paderborner Frühjahrstagung, Reagible Unternehmen in dynamischen Märkten*; March 26; Paderborn, Germany, 2008, pp. 455–469. [Conference Paper in German]
38. Csáji, B. Cs.; Rédei, M.: A racionális demokratikus véleményösszegzés korlátairól (On the Constraints of Rational Judgment Aggregation), *Magyar Filozófiai Szemle* (Hungarian Philosophical Review), 2010 [Journal Paper in Hungarian]

5. Ph.D. and Masters Theses

1. *Ph.D. Thesis*: Adaptive Resource Control (Information Science and Technology), Machine Learning Approaches to Resource Allocation in Uncertain and Changing Environments, Faculty of Informatics, Eötvös Loránd University, Budapest, Hungary, 2008
Supervisor: László Monostori, The Computer and Automation Research Institute (SZTAKI); and Budapest University of Technology and Economics (BME), Hungary
2. *M.A. Thesis*: Paradoxes in Rational Collective Decisions (Philosophy of Science), Faculty of Humanities, Eötvös Loránd University, Budapest, Hungary, 2006
Supervisor: Miklós Rédei, Department of Philosophy, Logic and Scientific Method, London School of Economics and Political Science (LSE), United Kingdom
3. *M.Sc. Thesis*: Approximation with Feed-Forward Artificial Neural Networks (Computer Science with Mathematics major), Faculty of Science, Eötvös Loránd University, Budapest, Hungary, 2001 (thesis written at the Eindhoven University of Technology)
Supervisor: Huub ten Eikelder, Department of Biomedical Engineering, Eindhoven University of Technology (TU/e), The Netherlands
- Independent citation(s): 5

6. Invited Talks

1. Csáji, B. Cs.: “Introduction to Markov Decision Processes”, Signals & Systems Colloquium, Department of Electrical and Electronic Engineering, *University of Melbourne*, Australia, April 29, 2010
2. Csáji, B. Cs.: “On Parameter Uncertainties of Markov Decision Processes”, Department of Electrical Engineering and Computer Science, *University of Liège*, Belgium, April 28, 2009

3. Csáji, B. Cs.: “Reinforcement Learning in Time-Varying Environments”, Robot Learning Group, Dalle Molle Institute for Artificial Intelligence (IDSIA), *University of Lugano*, Switzerland, April 21, 2009
4. Csáji, B. Cs.: “On Parameter Uncertainties of Markov Decision Processes”, Research Group on Large Graphs and Networks, Department of Mathematical Engineering, *Catholic University of Louvain*, Belgium, January 16, 2009
5. Csáji, B. Cs.: “On Parameter Uncertainties of Markov Decision Processes”, Institute of Perception, Action and Behavior (IPAB), School of Informatics, *University of Edinburgh*, United Kingdom, December 4, 2008
6. Csáji, B. Cs.: “Learning in Changing Environments: Reinforcement Learning in Environments with Asymptotically Bounded Variation”, Gatsby Computational and Theoretical Neuroscience and Machine Learning Unit, *University College London*, London, United Kingdom, September 24, 2008
7. Csáji, B. Cs.: “Reinforcement Learning in Varying Environments with Applications in Resource Allocation”, Department of Mathematical Engineering, *Université catholique de Louvain*, Louvain-la-Neuve, Belgium, June 24, 2008
8. Csáji, B. Cs.: “Adaptive Resource Control: Machine Learning Approaches to Stochastic Resource Allocation”, Artificial Intelligence Seminar, Alberta Ingenuity Centre for Machine Learning, *University of Alberta*, Canada, October 26, 2007
9. Csáji, B. Cs.: “Learning in Varying Environments: Reinforcement Learning in Environments with Asymptotically Bounded Variation”, Special Lecture, Alberta Ingenuity Centre for Machine Learning, *University of Alberta*, Canada, October 24, 2007
10. Csáji, B. Cs.: “Constructive Approximation with Feed-forward Artificial Neural Networks”, Faculty of Mathematics and Computer Science, *Eindhoven University of Technology*, Eindhoven, The Netherlands, June, 2001

Publication Summary

category	own articles	first author	impact factor	ind. citations
journal	12	5	10.993	40
book chapter	6	4	1.066	19
conference	20	8	0	42
thesis	(3)	(3)	0	5
total	38	17	12.059	106