



















## REFERENCES

- [1] I.F. Akyildiz, W. Su, Y. Sankarasubramaniam, and E. Cayirci. 2002. Wireless sensor networks: a survey. *Computer Networks* 38, 4 (2002), 393–422. [https://doi.org/10.1016/S1389-1286\(01\)00302-4](https://doi.org/10.1016/S1389-1286(01)00302-4)
- [2] Christopher Amato, George Dimitri Konidaris, and Leslie Pack Kaelbling. 2014. Planning with macro-actions in decentralized POMDPs. In *International conference on Autonomous Agents and Multi-Agent Systems, AAMAS '14, Paris, France, May 5-9, 2014*, Ana L. C. Bazzan, Michael N. Huhns, Alessio Lomuscio, and Paul Scerri (Eds.). IFAAMAS/ACM, 1273–1280. <http://dl.acm.org/citation.cfm?id=2617451>
- [3] Marcin Andrychowicz, Anton Raichuk, Piotr Stanczyk, Manu Orsini, Sertan Girgin, Raphaël Marinier, Léonard Hussenot, Matthieu Geist, Olivier Pietquin, Marcin Michalski, Sylvain Gelly, and Olivier Bachem. 2020. What Matters In On-Policy Reinforcement Learning? A Large-Scale Empirical Study. *CoRR* abs/2006.05990 (2020). [arXiv:2006.05990](https://arxiv.org/abs/2006.05990) <https://doi.org/10.1109/INFCOM.2018.8486402>
- [4] Johan Björck, Carla P. Gomes, and Kilian Q. Weinberger. 2021. Towards Deeper Deep Reinforcement Learning. *CoRR* abs/2106.01151 (2021). [arXiv:2106.01151](https://arxiv.org/abs/2106.01151)
- [5] Vrajesh Kumar Chawra and Govind P. Gupta. 2021. Hybrid meta-heuristic techniques based efficient charging scheduling scheme for multiple Mobile wireless chargers based wireless rechargeable sensor networks. *Peer Peer Netw. Appl.* 14, 3 (2021), 1303–1315. <https://doi.org/10.1007/s12083-020-01052-8>
- [6] Yuxin Chen, Hejun Wu, Yongheng Liang, and Guoming Lai. 2021. VarLenMARRL: A Framework of Variable-Length Time-Step Multi-Agent Reinforcement Learning for Cooperative Charging in Sensor Networks. In *18th Annual IEEE International Conference on Sensing, Communication, and Networking, SECON 2021, Rome, Italy, July 6-9, 2021*. IEEE, 1–9. <https://doi.org/10.1109/SECON52354.2021.9491594>
- [7] Kyunghyun Cho, Bart van Merriënboer, Çağlar Gülçehre, Dzmitry Bahdanau, Fethi Bougares, Holger Schwenk, and Yoshua Bengio. 2014. Learning Phrase Representations using RNN Encoder-Decoder for Statistical Machine Translation. In *Proceedings of the 2014 Conference on Empirical Methods in Natural Language Processing, EMNLP 2014, October 25-29, 2014, Doha, Qatar, A meeting of SIGDAT, a Special Interest Group of the ACL*, Alessandro Moschitti, Bo Pang, and Walter Daelemans (Eds.). ACL, 1724–1734. <https://doi.org/10.3115/v1/d14-1179>
- [8] Darolt. 2018. "Wsn simulator". <https://github.com/darolt/wsn>
- [9] Christian Schröder de Witt, Tarun Gupta, Denys Makovychuk, Viktor Makoviy-chuk, Philip H. S. Torr, Mingfei Sun, and Shimon Whiteson. 2020. Is Independent Learning All You Need in the StarCraft Multi-Agent Challenge? *CoRR* abs/2011.09533 (2020). [arXiv:2011.09533](https://arxiv.org/abs/2011.09533)
- [10] Jakob N. Foerster, Gregory Farquhar, Triantafyllos Afouras, Nantas Nardelli, and Shimon Whiteson. 2018. Counterfactual Multi-Agent Policy Gradients. In *Proceedings of the Thirty-Second AAAI Conference on Artificial Intelligence (AAAI-18), the 30th innovative Applications of Artificial Intelligence (IAAI-18), and the 8th AAAI Symposium on Educational Advances in Artificial Intelligence (EAAI-18), New Orleans, Louisiana, USA, February 2-7, 2018*, Sheila A. McIlraith and Kilian Q. Weinberger (Eds.). AAAI Press, 2974–2982. <https://www.aaai.org/ocs/index.php/AAAI/AAAI18/paper/view/17193>
- [11] Ian J. Goodfellow, Yaroslav Bulatov, Julian Ibarz, Sacha Arnoud, and Vinay D. Snet. 2014. Multi-digit Number Recognition from Street View Imagery using Deep Convolutional Neural Networks. In *2nd International Conference on Learning Representations, ICLR 2014, Banff, AB, Canada, April 14-16, 2014, Conference Track Proceedings*, Yoshua Bengio and Yann LeCun (Eds.). <http://arxiv.org/abs/1312.6082>
- [12] Jayesh K. Gupta, Maxim Egorov, and Mykel J. Kochenderfer. 2017. Cooperative Multi-agent Control Using Deep Reinforcement Learning. In *Autonomous Agents and Multiagent Systems - AAMAS 2017 Workshops, Best Papers, São Paulo, Brazil, May 8-12, 2017, Revised Selected Papers (Lecture Notes in Computer Science, Vol. 10642)*, Gita Sukthankar and Juan A. Rodríguez-Aguilar (Eds.). Springer, 66–83. [https://doi.org/10.1007/978-3-319-71682-4\\_5](https://doi.org/10.1007/978-3-319-71682-4_5)
- [13] Liang He, Peng Cheng, Yu Gu, Jianping Pan, Ting Zhu, and Cong Liu. 2014. Mobile-to-mobile energy replenishment in mission-critical robotic sensor networks. In *2014 IEEE Conference on Computer Communications, INFOCOM 2014, Toronto, Canada, April 27 - May 2, 2014*. IEEE, 1195–1203. <https://doi.org/10.1109/INFCOM.2014.6848051>
- [14] Sepp Hochreiter and Jürgen Schmidhuber. 1997. Long Short-Term Memory. *Neural Comput.* 9, 8 (1997), 1735–1780. <https://doi.org/10.1162/neco.1997.9.8.1735>
- [15] Andrew Howard, Ruoming Pang, Hartwig Adam, Quoc V. Le, Mark Sandler, Bo Chen, Weijun Wang, Liang-Chieh Chen, Mingxing Tan, Grace Chu, Vijay Vasudevan, and Yukun Zhu. 2019. Searching for MobileNetV3. In *2019 IEEE/CVF International Conference on Computer Vision, ICCV 2019, Seoul, Korea (South), October 27 - November 2, 2019*. IEEE, 1314–1324. <https://doi.org/10.1109/ICCV.2019.00140>
- [16] Shengyi Huang and Santiago Ontañón. 2020. A Closer Look at Invalid Action Masking in Policy Gradient Algorithms. *CoRR* abs/2006.14171 (2020). [arXiv:2006.14171](https://arxiv.org/abs/2006.14171) <https://doi.org/10.1109/INFCOM.2018.8486402>
- [17] Chi Lin, Zhiyuan Wang, Jing Deng, Lei Wang, Jiankang Ren, and Guowei Wu. 2018. mTS: Temporal-and Spatial-Collaborative Charging for Wireless Rechargeable Sensor Networks with Multiple Vehicles. In *2018 IEEE Conference on Computer Communications, INFOCOM 2018, Honolulu, HI, USA, April 16-19, 2018*. IEEE, 99–107. <https://doi.org/10.1109/INFCOM.2018.8486402>
- [18] Chi Lin, Shuang Wei, Jing Deng, Mohammad S. Obaidat, Houbing Song, Lei Wang, and Guowei Wu. 2018. GTCCS: A Game Theoretical Collaborative Charging Scheduling for On-Demand Charging Architecture. *IEEE Trans. Veh. Technol.* 67, 12 (2018), 12124–12136. <https://doi.org/10.1109/TVT.2018.2872890>
- [19] Tang Liu, Baijun Wu, Hongyi Wu, and Jian Peng. 2017. Low-Cost Collaborative Mobile Charging for Large-Scale Wireless Sensor Networks. *IEEE Trans. Mob. Comput.* 16, 8 (2017), 2213–2227. <https://doi.org/10.1109/TMC.2016.2616309>
- [20] Ryan Lowe, Yi Wu, Aviv Tamar, Jean Harb, Pieter Abbeel, and Igor Mordatch. 2017. Multi-Agent Actor-Critic for Mixed Cooperative-Competitive Environments. In *Advances in Neural Information Processing Systems 30: Annual Conference on Neural Information Processing Systems 2017, December 4-9, 2017, Long Beach, CA, USA*, Isabelle Guyon, Ulrike von Luxburg, Samy Bengio, Hanna M. Wallach, Rob Fergus, S. V. N. Vishwanathan, and Roman Garnett (Eds.). 6379–6390. <https://proceedings.neurips.cc/paper/2017/hash/68a9750337a418a86fe06c1991a1d64c-Abstract.html>
- [21] F. Oliehoek and Arnoud Visser. 2006. A hierarchical model for decentralized fighting of large scale urban fires. *ACM Transactions on Multimedia Computing, Communications, and Applications - TOMCCAP*.
- [22] Frans A. Oliehoek and Christopher Amato. 2016. *A Concise Introduction to Decentralized POMDPs*. Springer. <https://doi.org/10.1007/978-3-319-28929-8>
- [23] Bushra Rashid and Mubashir Husain Rehmani. 2016. Applications of wireless sensor networks for urban areas: A survey. *J. Netw. Comput. Appl.* 60 (2016), 192–219. <https://doi.org/10.1016/j.jnca.2015.09.008>
- [24] Tabish Rashid, Mikayel Samvelyan, Christian Schröder de Witt, Gregory Farquhar, Jakob N. Foerster, and Shimon Whiteson. 2018. QMIX: Monotonic Value Function Factorisation for Deep Multi-Agent Reinforcement Learning. In *Proceedings of the 35th International Conference on Machine Learning, ICML 2018, Stockholm, Sweden, July 10-15, 2018 (Proceedings of Machine Learning Research, Vol. 80)*, Jennifer G. Dy and Andreas Krause (Eds.). PMLR, 4292–4301. <http://proceedings.mlr.press/v80/rashid18a.html>
- [25] Ardi Tampuu, Tanel Matiisen, Dorian Kodelja, Ilya Kuzovkin, Kristjan Korjus, Juhan Aru, Jaan Aru, and Raul Vicente. 2015. Multiagent Cooperation and Competition with Deep Reinforcement Learning. *CoRR* abs/1511.08779 (2015). [arXiv:1511.08779](https://arxiv.org/abs/1511.08779) <http://arxiv.org/abs/1511.08779>
- [26] Ming Tan. 1993. Multi-Agent Reinforcement Learning: Independent vs. Cooperative Agents. In *In Proceedings of the Tenth International Conference on Machine Learning*, Morgan Kaufmann, 330–337.
- [27] Kun Wang, Lei Wang, Chi Lin, Mohammad S. Obaidat, and Muhammad Alam. 2020. Prolonging lifetime for wireless rechargeable sensor networks through sleeping and charging scheduling. *Int. J. Commun. Syst.* 33, 8 (2020). <https://doi.org/10.1002/dac.4355>
- [28] Geoffrey Werner-Allen, Konrad Lorincz, Matt Welsh, Omar Marcillo, Jeff Johnson, Mario Ruiz, and Jonathan Lees. 2006. Deploying a Wireless Sensor Network on an Active Volcano. *IEEE Internet Comput.* 10, 2 (2006), 18–25. <https://doi.org/10.1109/MIC.2006.26>
- [29] Chao Yu, Akash Velu, Eugene Vinitzky, Yu Wang, Alexandre M. Bayen, and Yi Wu. 2021. The Surprising Effectiveness of MAPPO in Cooperative, Multi-Agent Games. *CoRR* abs/2103.01955 (2021). [arXiv:2103.01955](https://arxiv.org/abs/2103.01955) <https://doi.org/10.1109/TC.2013.2297926>
- [30] Sheng Zhang, Jie Wu, and Sanglu Lu. 2015. Collaborative Mobile Charging. *IEEE Trans. Computers* 64, 3 (2015), 654–667. <https://doi.org/10.1109/TC.2013.2297926>