

Swarm driving with Deep Learning

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I. INTRODUCTION

[1] [2] [3] [4] [5]



Fig. 1. Example of a figure caption.

REFERENCES

- [1] M. Hüttenrauch, A. Šošić, and G. Neumann, “Guided deep reinforcement learning for swarm systems,” 01 2017.
- [2] L. V. Utkin, V. S. Zaborovskii, and S. G. Popov, “Detection of anomalous behavior in a robot system based on deep learning elements,” *Automatic Control and Computer Sciences*, vol. 50, pp. 726–733, Dec. 2016.
- [3] H. Ma, S. Li, E. Zhang, Z. Lv, J. Hu, and X. Wei, “Cooperative Autonomous Driving Oriented MEC-Aided 5G-V2X: Prototype System Design, Field Tests and AI-Based Optimization Tools,” *IEEE Access*, vol. 8, pp. 54288–54302, 2020.
- [4] H. T. Nguyen, T. D. Nguyen, V. P. Tran, M. Garratt, K. Kasmarik, S. Anavatti, M. Barlow, and H. A. Abbass, “Continuous deep hierarchical reinforcement learning for ground-air swarm herding,” 2020.
- [5] Y. Zhang, F. Tian, B. Song, and X. Du, “Social vehicle swarms: a novel perspective on socially aware vehicular communication architecture,” *IEEE Wireless Communications*, vol. 23, no. 4, pp. 82–89, 2016.