Ph.D. in Pure and Applied Mathematics

Ph.D. Thesis

Politecnico di Torino

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Generative Models as Out-of-equilibrium Particle Systems: the case of Energy-Based Models

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XXXVI cycle
Academic years 2020-2021 / 2021-2022 / 2022-2023

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Acknowledgements

Abstract

Contents

Part I

Main Content. Generative Models as Out-of-equilibrium Particle Systems: the case of Energy-Based Models

Part of the work described in this section has also been previously published in:

- D. Carbone, M. Hua, S. Coste, and E. Vanden-Eijnden. *Generative models as out-of-equilibrium particle systems: training of Energy-Based Models using Non-Equilibrium Thermodynamics.* To appear in: Proceedings of the 2nd International Conference on Nonlinear Dynamics and Applications (ICNDA), 2024
- D. Carbone, M. Hua, S. Coste, and E. Vanden-Eijnden. *Efficient Training of Energy-Based Models Using Jarzynski Equality.* In: Proceedings of 37th Conference on Neural Information Processing Systems (NeurIPS), 2023

Bibliography