Simulation Study of Average Convergence Rates of Self Healing Distributed Optimization Algorithm

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1 Introduction

Thus far, we have shown that the self healing distributed optimization algorithm converges to the optimal solution in the presence of node failures. However, we have not yet shown that the algorithm converges at a reasonable rate. In this section, we will show that the algorithm converges at a rate that is comparable to the rate of convergence of the distributed optimization algorithm in the absence of node failures. [1]

References

[1] I. L. D. Ridgley, R. A. Freeman, and K. M. Lynch, "Self-Healing First-Order Distributed Optimization," version 2, 2021. DOI: 10.48550/ARXIV.2104.01959. [Online]. Available: https://arxiv.org/abs/2104.01959 (visited on 03/07/2023).