

RWTH Aachen University
Department of Computer Science

Design and Performance Engineering of GPU-Accelerated Tensor Network Algorithms for Large-Scale Scientific Simulations

Master Thesis

submitted by

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Aachen, February 17, 2026

Abstract

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Acknowledgements

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Contents

Abstract	iii
Acknowledgements	v
List of Figures	ix
List of Tables	xi
Listings	xiii
1. Introduction	1
1.1. Motivation	1
1.2. Problem Statement	1
1.3. Contributions	1
1.4. Outline	1
2. Background	3
2.1. Tensor Networks	3
2.1.1. Tensor Notation and Diagrams	3
2.1.2. Tensor Contraction	3
2.1.3. Tensor Network Structures	3
2.2. GPU Architecture	3
2.2.1. Streaming Multiprocessor and Warp Execution	3
2.2.2. Memory Hierarchy	3
2.2.3. NVIDIA A100 Ampere Architecture	3
2.3. CUDA Programming Model	3
2.3.1. Thread Hierarchy and Kernel Launch	3
2.3.2. Shared Memory and Synchronisation	3
2.3.3. Memory Coalescing and Bank Conflicts	3
2.3.4. Performance Profiling with Nsight Compute	3
2.4. Related Work	3
2.4.1. cuBLAS and cuTENSOR	3
2.4.2. ChASE Eigensolver	3
2.4.3. Existing GPU Tensor Network Implementations	3
3. Design and Methodology	5
3.1. Target Kernels	5
3.2. Algorithmic Approach	5
3.3. Data Layout and Memory Strategy	5
3.4. Baseline Selection	5
4. Implementation	7
4.1. Kernel Design	7

4.2. Shared Memory Tiling	7
4.3. Occupancy and Launch Configuration	7
4.4. Integration and Build System	7
5. Results	9
5.1. Experimental Setup	9
5.2. Single-GPU Performance	9
5.3. Profiling Analysis	9
5.4. Comparison with cuBLAS and cuTENSOR	9
5.5. Scaling Behaviour	9
5.6. Discussion	9
6. Conclusion	11
6.1. Summary	11
6.2. Limitations	11
6.3. Future Work	11
Bibliography	13
A. Supplementary Benchmarks	15
Declaration of Authorship	17

List of Figures

List of Tables

Listings

1. Introduction

1.1. Motivation

1.2. Problem Statement

1.3. Contributions

1.4. Outline

The remainder of this thesis is structured as follows. Chapter 2 introduces ...Chapter 3 presents ...Chapter 4 details ...Chapter 5 evaluates ...Chapter 6 summarises ...

2. Background

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2.3. CUDA Programming Model

2.3.1. Thread Hierarchy and Kernel Launch

2.3.2. Shared Memory and Synchronisation

2.3.3. Memory Coalescing and Bank Conflicts

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3.2. Algorithmic Approach

3.3. Data Layout and Memory Strategy

3.4. Baseline Selection

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4.3. Occupancy and Launch Configuration

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5.6. Discussion

6. Conclusion

6.1. Summary

6.2. Limitations

6.3. Future Work

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A. Supplementary Benchmarks

TODO

Declaration of Authorship

I hereby declare that I have created this work completely on my own and used no other sources or tools than the ones listed, and that I have marked any quotes accordingly.

Aachen, February 17, 2026

Daniel Sinkin