**Result analysis of Project 1**

**by**

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1. **Part 1 and 2**

cc.trace

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Associative Level | L1I access | L1I misses | L1D access | L1D misses | L1I hit rate | L1D hit rate | AMAT |
| 1 | 757341 | 83386 | 242661 | 117514 | 88.99% | 51.57% | 21.09 |
| 2 | 757341 | 79575 | 242661 | 109691 | 89.49% | 54.80% | 19.93 |
| 4 | 757341 | 79454 | 242661 | 106780 | 89.51% | 56.00% | 19.62 |
| 8 | 757341 | 79130 | 242661 | 105438 | 89.55% | 56.55% | 19.46 |
| 16 | 757341 | 79165 | 242661 | 104656 | 89.55% | 56.87% | 19.38 |
| 32 | 757341 | 79272 | 242661 | 104540 | 89.53% | 56.92% | 19.38 |

spice.trace

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Associative Level | L1I access | L1I misses | L1D access | L1D misses | L1I hit rate | L1D hit rate | AMAT |
| 1 | 782764 | 60940 | 217237 | 92967 | 92.21% | 57.20% | 16.39 |
| 2 | 782764 | 57744 | 217237 | 85240 | 92.62% | 60.76% | 15.30 |
| 4 | 782764 | 57156 | 217237 | 82931 | 92.70 | 61.82% | 15.01 |
| 8 | 782764 | 58371 | 217237 | 81929 | 92.54% | 62.29% | 15.03 |
| 16 | 782764 | 59985 | 217237 | 82005 | 92.34% | 62.25% | 15.20 |
| 32 | 782764 | 58796 | 217237 | 83050 | 92.49% | 61.77% | 15.18 |

tex.trace

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| --- | --- | --- | --- | --- | --- | --- | --- |
| Associative Level | L1I access | L1I misses | L1D access | L1D misses | L1I hit rate | L1D hit rate | AMAT |
| 1 | 597309 | 52274 | 235168 | 116459 | 91.25% | 50.48% | 21.27 |
| 2 | 597309 | 50 | 235168 | 107172 | 99.00% | 54.43% | 13.88 |
| 4 | 597309 | 60 | 235168 | 105453 | 99.00% | 55.16% | 13.67 |
| 8 | 597309 | 29 | 235168 | 105453 | 100.00 | 55.16% | 13.67 |
| 16 | 597309 | 29 | 235168 | 105453 | 100.00% | 55.16% | 13.67 |
| 32 | 597309 | 29 | 235168 | 105453 | 100.00% | 55.16% | 13.67 |

1. **Part 3 and 4**

cc.trace

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| --- | --- | --- | --- | --- | --- | --- | --- |
| Associative Level | L1I access | L1I misses | L1D access | L1D misses | L1I hit rate | L1D hit rate | AMAT |
| 1 | 757341 | 83386 | 242661 | 40750 | 88.99% | 83.21% | 13.41 |
| 2 | 757341 | 79575 | 242661 | 31599 | 89.49% | 86.98% | 12.12 |
| 4 | 757341 | 79454 | 242661 | 27143 | 89.51% | 88.81% | 11.66 |
| 8 | 757341 | 79130 | 242661 | 25665 | 89.55% | 89.42% | 11.48 |
| 16 | 757341 | 79165 | 242661 | 24839 | 89.55% | 89.76% | 11.40 |
| 32 | 757341 | 79272 | 242661 | 24797 | 89.53% | 89.78% | 11.41 |

spice.trace

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| --- | --- | --- | --- | --- | --- | --- | --- |
| Associative Level | L1I access | L1I misses | L1D access | L1D misses | L1I hit rate | L1D hit rate | AMAT |
| 1 | 782764 | 60940 | 217237 | 28109 | 92.21% | 87.06% | 9.90 |
| 2 | 782764 | 57744 | 217237 | 20154 | 92.62% | 90.72% | 8.79 |
| 4 | 782764 | 57156 | 217237 | 17403 | 92.70% | 91.99% | 8.46 |
| 8 | 782764 | 58371 | 217237 | 16337 | 92.54% | 92.48% | 8.47 |
| 16 | 782764 | 59985 | 217237 | 16260 | 92.34% | 92.52% | 8.62 |
| 32 | 782764 | 58796 | 217237 | 17134 | 92.49% | 92.11% | 8.59 |

tex.trace

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| --- | --- | --- | --- | --- | --- | --- | --- |
| Associative Level | L1I access | L1I misses | L1D access | L1D misses | L1I hit rate | L1D hit rate | AMAT |
| 1 | 597309 | 52274 | 235168 | 12963 | 91.25% | 94.49% | 8.84 |
| 2 | 597309 | 50 | 235168 | 3244 | 99.99% | 98.62% | 1.40 |
| 4 | 597309 | 60 | 235168 | 1513 | 99.99% | 99.36% | 1.19 |
| 8 | 597309 | 29 | 235168 | 1401 | 100.00% | 99.40% | 1.17 |
| 16 | 597309 | 29 | 235168 | 1406 | 100.00% | 99.40% | 1.17 |
| 32 | 597309 | 29 | 235168 | 1815 | 100.00% | 99.23% | 1.22 |

1. **Part 5**

cc.trace

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Associative Level | L1I access | L1I misses | L1I hit rate | L1D access | L1D misses | L1D hit rate | L2 access | L2 misses | L2 hit rate | AMAT |
| 1 | 757341 | 79575 | 89.49% | 242661 | 26661 | 89.01% | 111174 | 26772 | 75.92% | 4.62 |
| 4 | 757341 | 79575 | 89.49% | 242661 | 26661 | 89.01% | 111174 | 20346 | 81.70% | 4.01 |
| 16 | 757341 | 79575 | 89.49% | 242661 | 26661 | 89.01% | 111174 | 19363 | 82.58% | 3.91 |
| 32 | 757341 | 79575 | 89.49% | 242661 | 26661 | 89.01% | 111174 | 19429 | 82.52% | 3.92 |
| 64 | 757341 | 79575 | 89.49% | 242661 | 26661 | 89.01% | 111174 | 19676 | 82.30% | 3.94 |
| 128 | 757341 | 79575 | 89.49% | 242661 | 26661 | 89.01% | 111174 | 19564 | 82.40% | 3.93 |

Spice.trace

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Associative Level | L1I access | L1I misses | L1I hit rate | L1D access | L1D misses | L1D hit rate | L2 access | L2 misses | L2 hit rate | AMAT |
| 1 | 782764 | 57744 | 92.62% | 217237 | 18702 | 91.39% | 77898 | 11816 | 84.83% | 2.29 |
| 4 | 782764 | 57744 | 92.62% | 217237 | 18702 | 91.39% | 77898 | 5642 | 92.76% | 2.32 |
| 16 | 782764 | 57744 | 92.62% | 217237 | 18702 | 91.39% | 77898 | 5829 | 92.52% | 2.34 |
| 32 | 782764 | 57744 | 92.62% | 217237 | 18702 | 91.39% | 77898 | 5957 | 92.35% | 2.35 |
| 64 | 782764 | 57744 | 92.62% | 217237 | 18702 | 91.39% | 77898 | 6021 | 92.27% | 2.36 |
| 128 | 782764 | 57744 | 92.62% | 217237 | 18702 | 91.39% | 77898 | 5908 | 92.42% | 2.34 |

tex.trace

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Associative Level | L1I access | L1I misses | L1I hit rate | L1D access | L1D misses | L1D hit rate | L2 access | L2 misses | L2 hit rate | AMAT |
| 1 | 597309 | 50 | 99.99% | 235168 | 2659 | 98.87% | 3294 | 152 | 95.39% | 1.05 |
| 4 | 597309 | 50 | 99.99% | 235168 | 2659 | 98.87% | 3294 | 82 | 97.51% | 1.04 |
| 16 | 597309 | 50 | 99.99% | 235168 | 2659 | 98.87% | 3294 | 81 | 97.54% | 1.04 |
| 32 | 597309 | 50 | 99.99% | 235168 | 2659 | 98.87% | 3294 | 81 | 97.54% | 1.04 |
| 64 | 597309 | 50 | 99.99% | 235168 | 2659 | 98.87% | 3294 | 81 | 97.54% | 1.04 |
| 128 | 597309 | 50 | 99.99% | 235168 | 2659 | 98.87% | 3294 | 81 | 97.54% | 1.04 |

**Part 6 Analysis and graph**

A graph of different colored lines

Description automatically generated

A graph of different colored lines

Description automatically generated

A graph of different colored lines

Description automatically generated