アルゴリズムとデータ構造Ⅱ Ex09

s1260066 岩田千穂

Q1 Strassen's Algorithm

1.

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| 行列サイズ | 通常の乗算 | Strassen's Algorithm |
| 4\*4 | 0.000001 | 0.000001 |
| 8\*8 | 0.000003 | 0.000003 |
| 16\*16 | 0.000019 | 0.000019 |
| 32\*32 | 0.000150 | 0.000153 |
| 64\*64 | 0.001209 | 0.001205 |
| 128\*128 | 0.008448 | 0.010359 |
| 256\*256 | 0.089800 | 0.088475 |
| 512\*512 | 0.705272 | 0.751228 |
| 1024\*1024 | 7.211485 | 7.063037 |
| 2048\*2048 | 223.248470 | 149.433563 |

2.

|  |  |
| --- | --- |
| BASE | Strassen's Algorithm |
| 64 | 16.599074 |
| 128 | 21.591435 |
| 256 | 30.560038 |
| 512 | 44.395146 |
| 1024 | 149.433563 |

Q2 block.c

コード参照