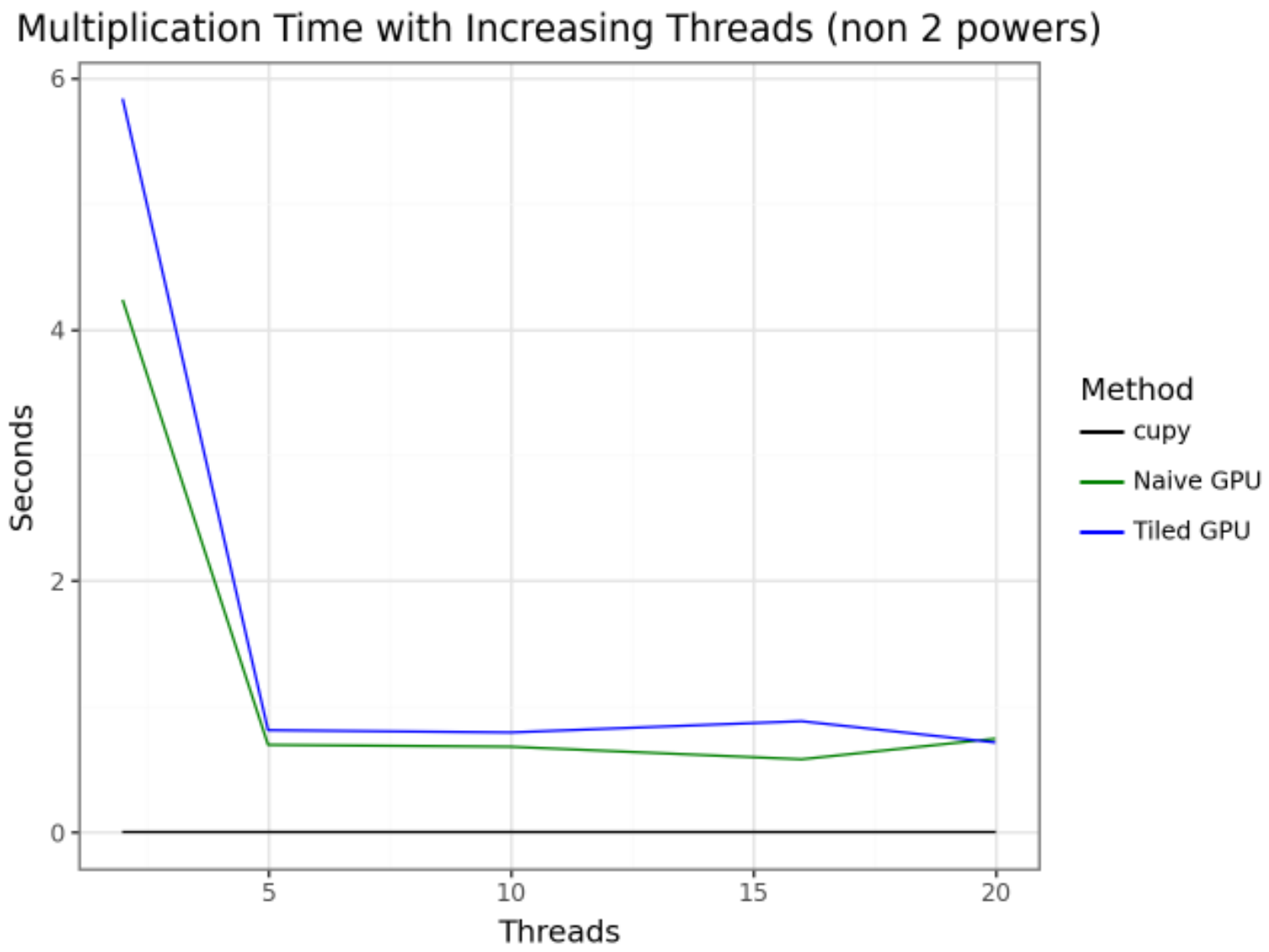
Computation

Simulation 2

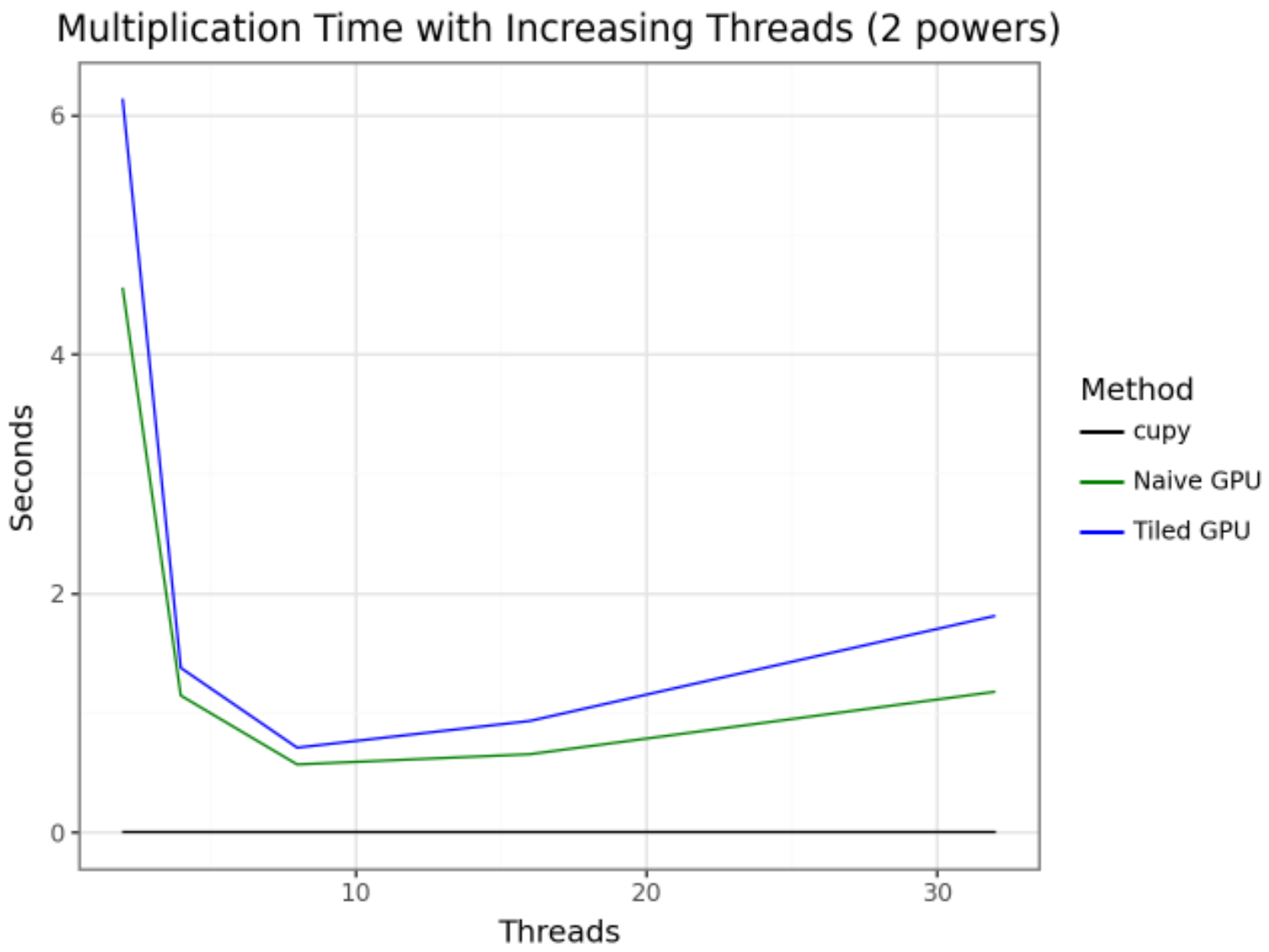
- Goal 1: compare speed with static dimension and increasing block size for the following algorithms
  - naive method on GPU
  - tiled method on GPU
  - pre-built in method on GPU (cupy)
- Goal 2: compare speed between 2-power sizes and non-2 power sizes
  - Square matrices with approximately equal dimension (2000 and 2048)
  - Threads for non 2-power: 2, 5, 10, 16, 20
  - Threads for 2-power: 2, 4, 8, 16, 32

IOWA

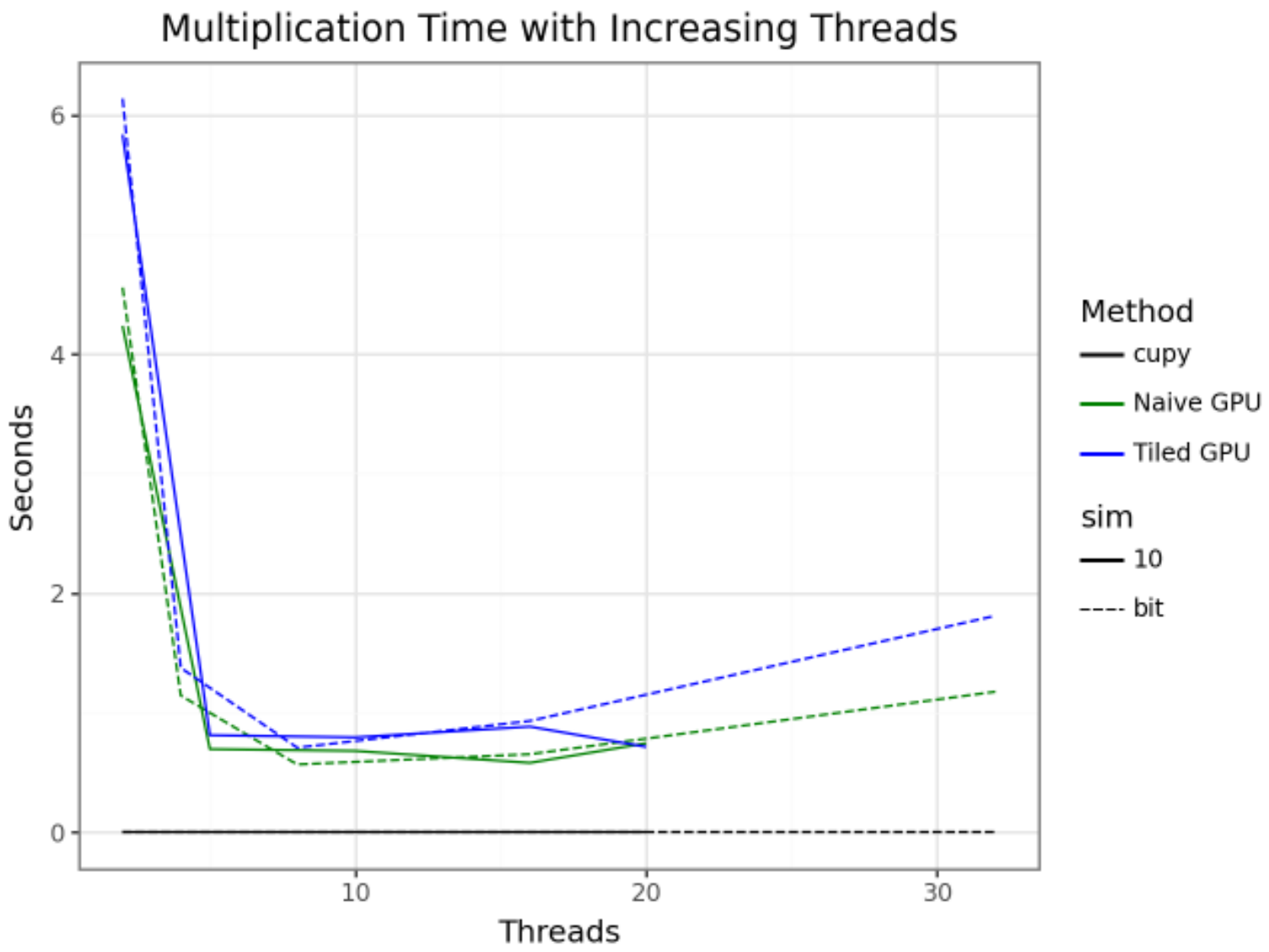
Simulation 2 Results



Simulation 2 Results



Simulation 2 Results



Conclusion

Conclusions

- What should happen vs what does happen
- How does this relate to the Warhammer 40k Universe

Recources

- Python packages: numba, cupy
- Youtube: nickcorn93, "Tutorial: CUDA programming in Python with numba and cupy"
- My code is all posted on my github under jcthomas531 if you want to play around with it