



**KTH Engineering Sciences**

# GPU Simulation of Rigid Fibers

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# Abstract

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# Referat

## GPU simulering av stela fibrer

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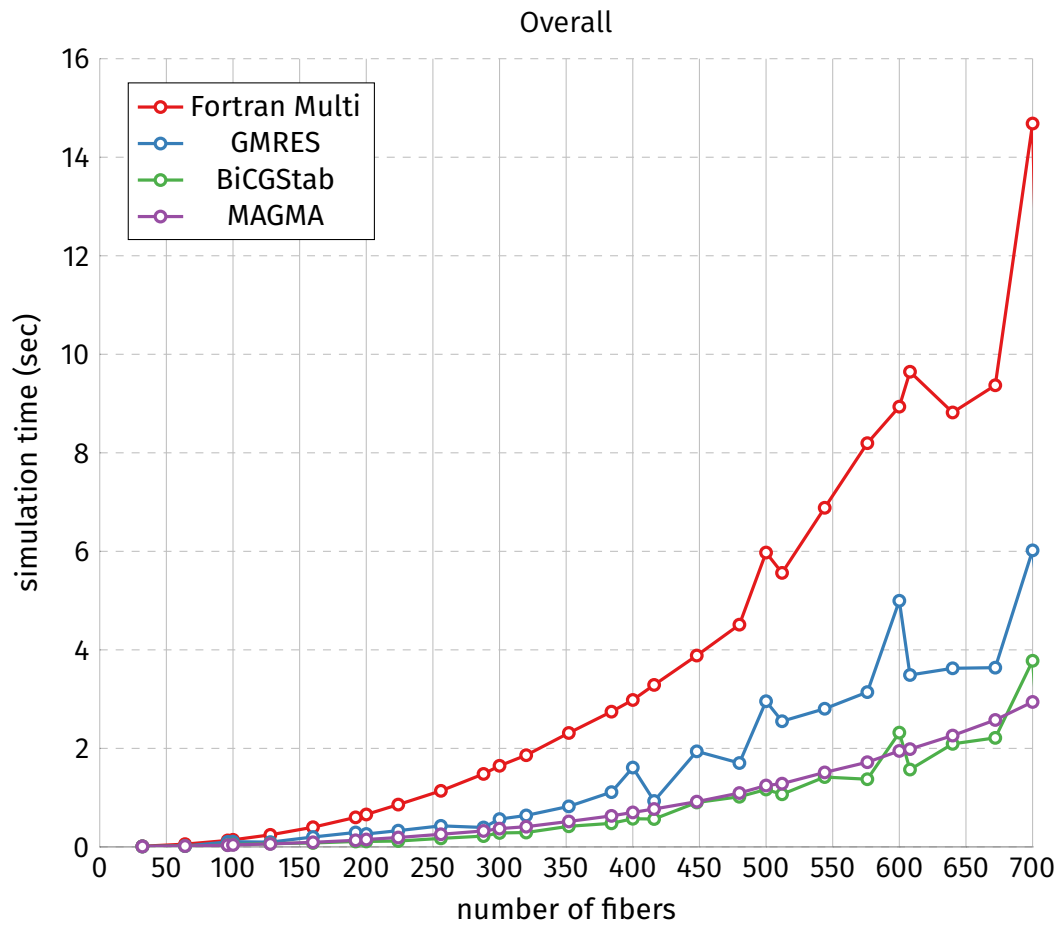


Figure 1.1: Total time per timestep using the average over 10 timesteps. First timestep is excluded as warmup. Assuming linear scaling for Fortran.



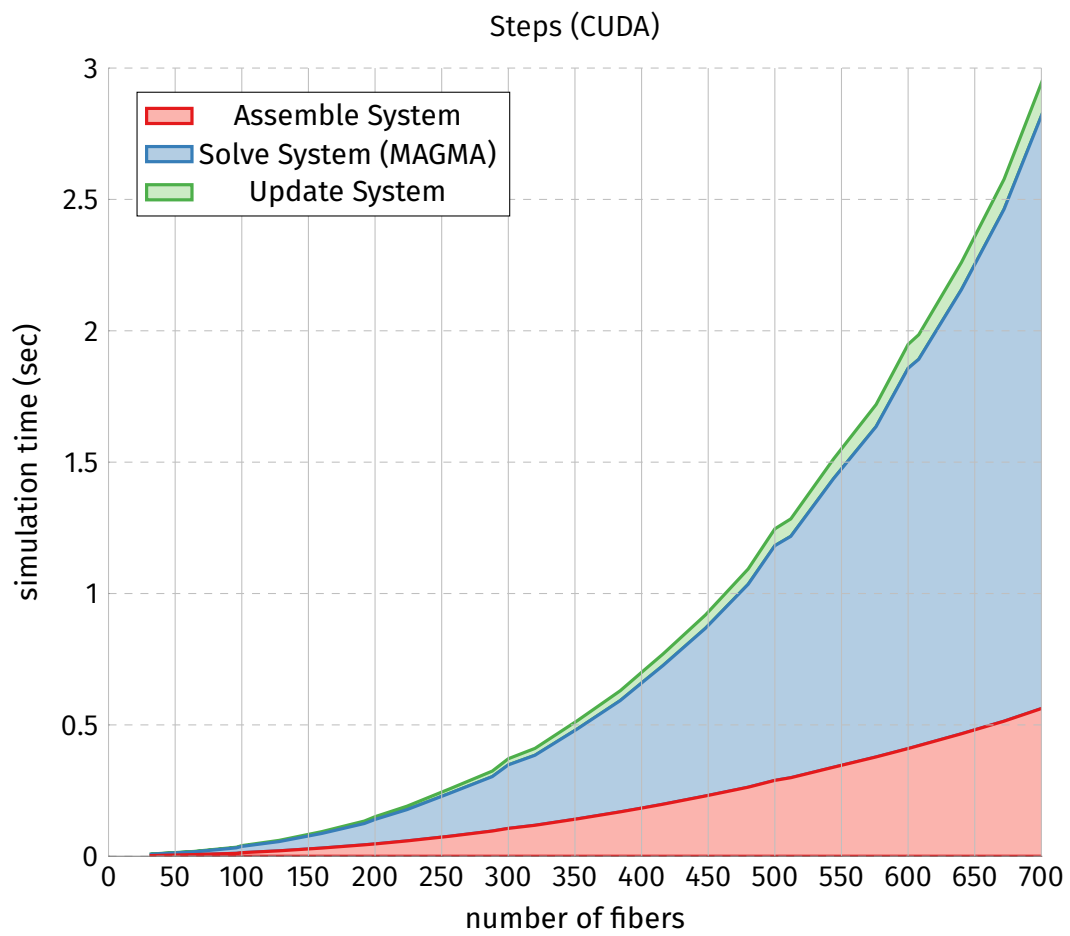


Figure 1.2: Average time for each simulation step over 10 timesteps. First timestep is excluded as warmup.

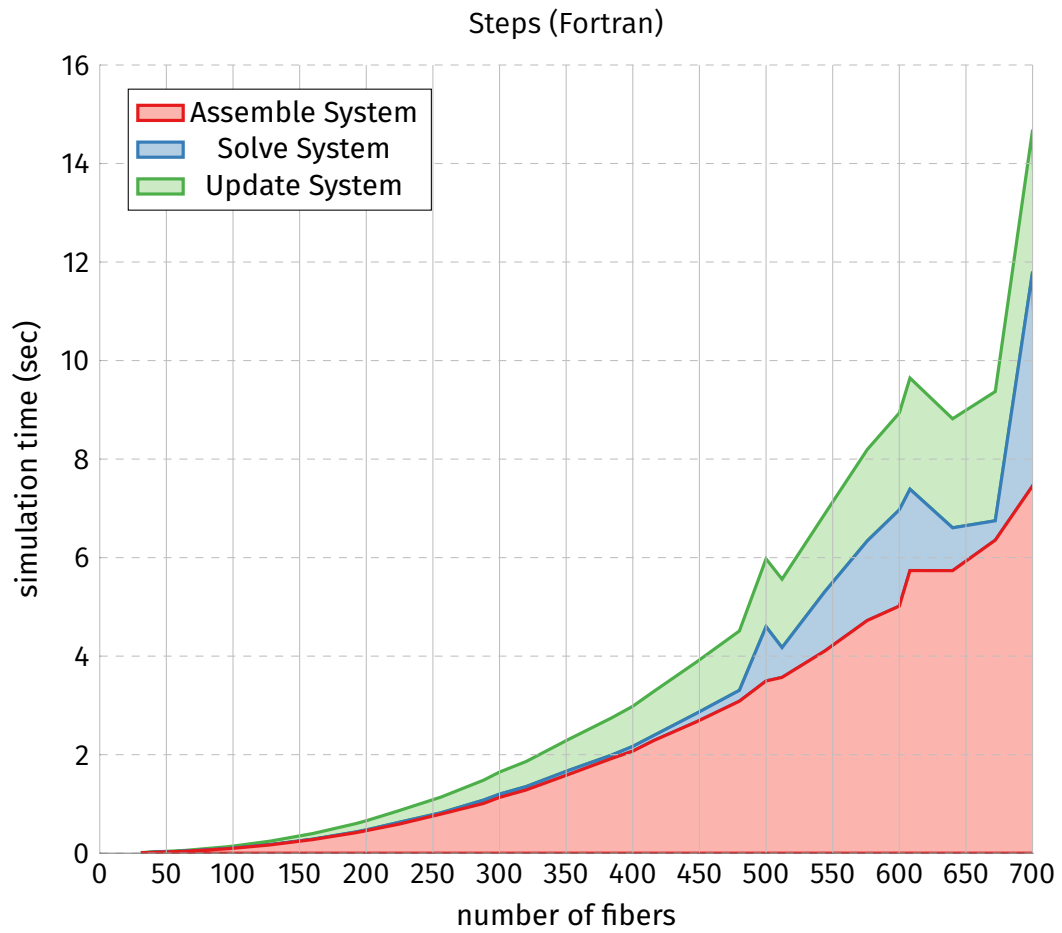


Figure 1.3: Average time for each simulation step over 10 timesteps. First timestep is excluded as warmup. Assuming linear scaling for Fortran.

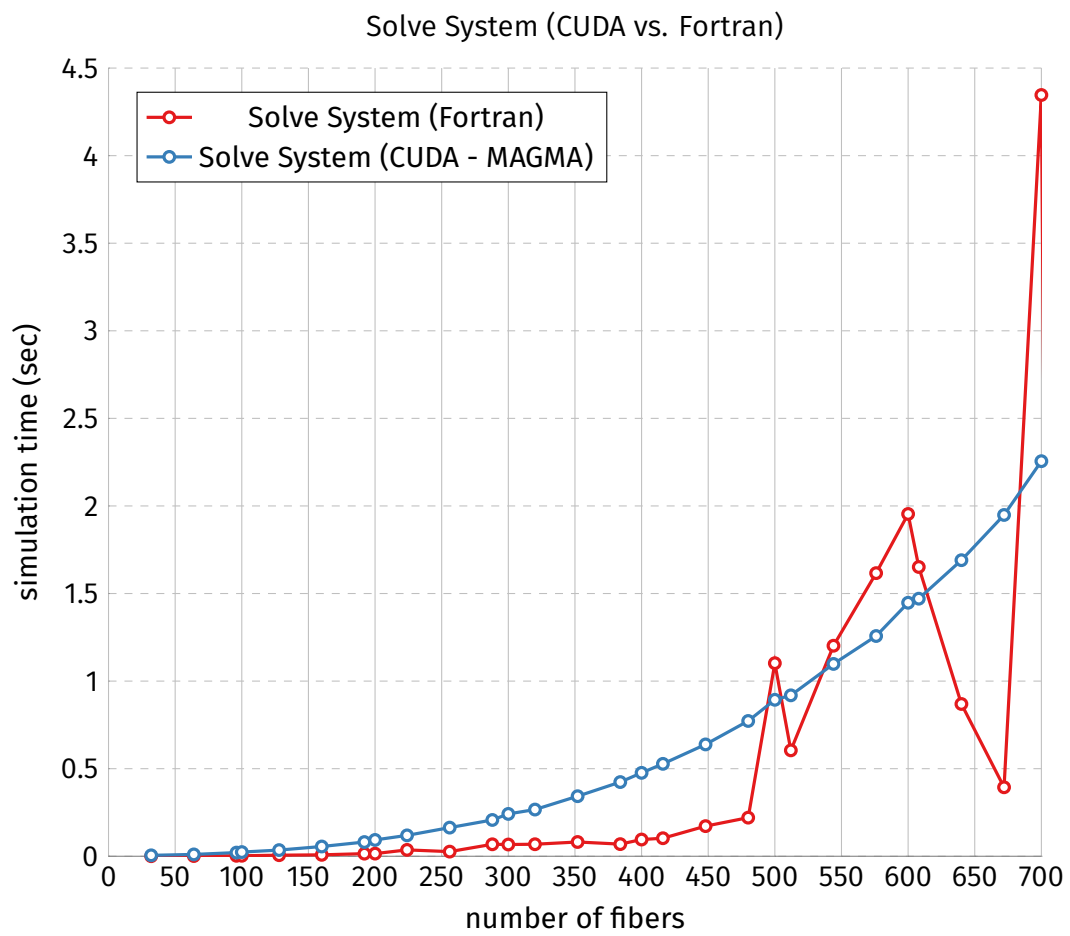


Figure 1.4: Average time for solve system step. Averaged over 10 timesteps (1st excluded). Assuming linear scaling for Fortran.

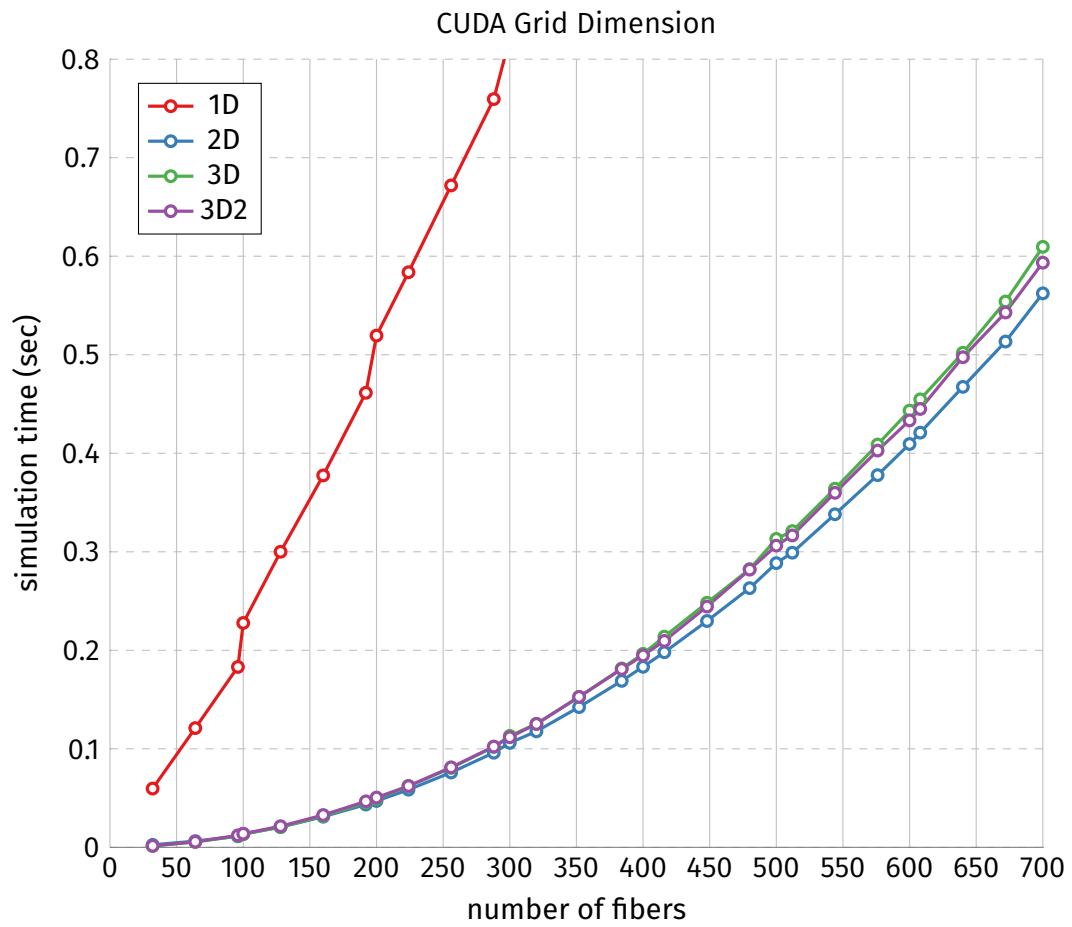


Figure 1.5: Total time per timestep using the average over 10 timesteps. First timestep is excluded as warmup.

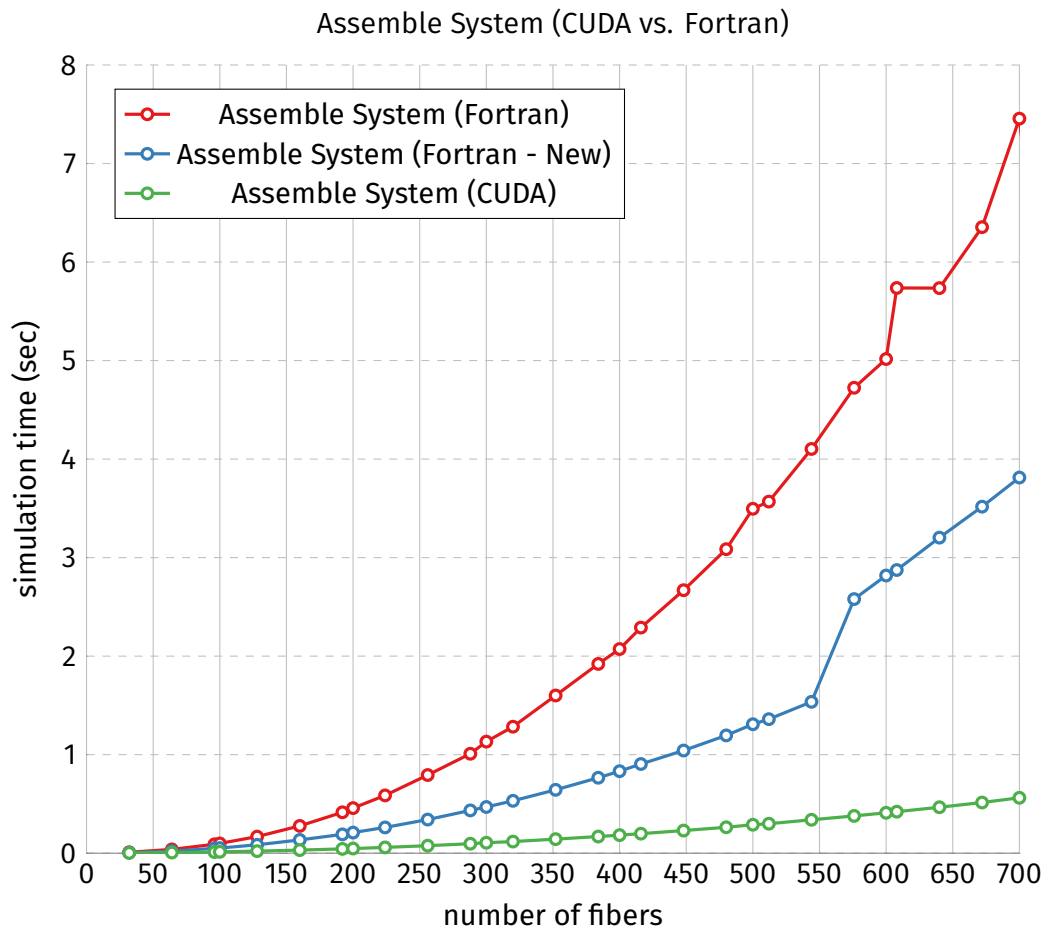


Figure 1.6: Average time for assemble system step. Fortran and CUDA are averaged over 10 timesteps (1st excluded). Fortran New is only 1st timestep. Assuming linear scaling for Fortran.



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