

# **FYS 3150 - Project 3**

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## I. ABSTRACT

- URL to GitHub folder of the code: <https://github.com/lorenzsp/Project4.git>

## II. INTRODUCTION

## III. METHODS AND ALGORITHMS

Table I: The table shows the running time when we parallelize a code or not. The code has calculated  $\langle E \rangle$ ,  $\langle |M| \rangle$ ,  $\chi$ ,  $C_v$  in a temperature range  $T \in [2.2, 2.3] kT/J$  with a temperature step size  $dT = 0.005$  for different lattice dimension  $L$

$L$	Parallelized code	Normal code
40	2.18656	7.33698
60	4.75809	17.0014
80	8.43173	29.8397
100	14.1064	46.9271
	time in seconds	time in seconds

## IV. RESULTS

## V. CONCLUSION

## VI. BIBLIOGRAPHY

- M. H. Jensen, *Computational physics - Lecture notes Fall 2015*, University of Oslo - Department of Physics, 2015.