# Project 4 For the course FYS3150

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#### TING Å GJØRE

- a) ferdig
- b) alt
- c) alt
- d) alt
- e) alt
- f) alt

## Abstract

## Contents

1	Introduction	2
2	Theory	2
	2.1 Analytical solution for 2 × 2 lattice	
	2.1.1 Energy and mean magnetization	
	2.1.2 Partition function	
	2.1.3 Specific heat	
	2.1.4 Susceptibility	3
3	Method	3
4	Results	3
5	Discussion	4
6	Conclusion and perspective	4
7	Appendix	4
8	References	4

## 1 Introduction

# 2 Theory

#### 2.1 Analytical solution for $2 \times 2$ lattice

a): gjort ferdig alle beregningene. ikke gjort beregningen for E og M for alle 16 mikrotilstandene, men har gjort for en av dem og kan bruke dette som eksempel må skrive det inn fra boken til Alexandra.

- 2.1.1 Energy and mean magnetization
- 2.1.2 Partition function
- 2.1.3 Specific heat
- 2.1.4 Susceptibility

# 3 Method

## 4 Results

.txt-files for all the raw data generated by the projects are up on our GitHub.

- 5 Discussion
- 6 Conclusion and perspective
- 7 Appendix

## 8 References

- [1] Morten H. Jensen (2019), Project 3, Departement of Physics, University of Oslo, Norway
- [2] Erik B. Grammeltvedt, Alexandra Jahr Kolstad, Erlend T. North (2019), GitHub, Students of Departement of Physics, University of Oslo, Norway
- [3] Morten H. Jensen (2015), Lecture slides for FYS3150, Department of Physics, University of Oslo, Norway
- [4] Weisstein, Eric W. "Laguerre Polynomial.", From MathWorld–A Wolfram Web Resource.