

# Project 1

## FYS-STK4155

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<https://github.com/Oskar-Idland/FYS-STK4155-Projects>

### I. INTRODUCTION

### II. THEORY

#### A. The Franke Function

#### B. Bias-Variance Tradeoff

### III. METHODS

#### A. Algorithms

##### 1. Ordinary Least Squares (OLS)

##### 2. Ridge

##### 3. Lasso

#### B. Implementation

##### 1. Code Structure

##### 2. Tools

#### C. Data Analysis

### IV. RESULTS

### V. DISCUSSION

### VI. CONCLUSION

### VII. REFLECTION

### ACKNOWLEDGEMENTS

### REFERENCES

## Appendix A: Derivations

## Appendix B: Additional Figures

## Appendix C: Code

`main.py`

`franke.py`