



UNIVERSITAT_{DE}
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NUMERICAL LINEAR ALGEBRA

MASTER IN FUNDAMENTAL PRINCIPLES OF DATA SCIENCE

PROJECT 2

SVD APPLICATIONS



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1 Introduction

The goal of this project is to discuss three common applications of the Singular Value Decomposition (SVD).

2 Least Squares problem

The first application that we are going to address is the Least Squares problem (LSP).

2.1 Polynomial fitting

2.2 The rank deficient LSP

3 Graphics compression

4 Principal Component Analysis

4.1 Example problem

4.2 Genes problem

References

- [1] Texto referencia
<https://url.referencia.com>