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On the Duality of Frequentist Point Estimates and Bayesian Shrinkage Priors

An Extension based on the Triple-Gamma-Prior

by

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Abstract

Lorem ipsum...

Contents

1	Introduction	1
2	Literature Review	1
2.1	Bayesian View	1
2.2	Frequentist View	1
2.3	Machine Learning Literature combating Model Complexity	1
3	Theoretical Section	1
3.1	Model Complexity	1
3.2	Under- and Overfitting	1
3.2.1	Regularization	1
3.2.2	Shrinkage Priors	1
3.3	Duality of the Ridge Regression	1
4	Model Setup and Derivation	1
5	Simulation Section	1
5.1	Computational Performance	1
5.2	Implementation as R Package?	1
6	Small Applied Section	1
7	Conclusion	1
8	Possible Extensions and Criticism	1
9	References	1

1 Introduction

2 Literature Review

2.1 Bayesian View

2.2 Frequentist View

2.3 Machine Learning Literature combating Model Complexity

3 Theoretical Section

3.1 Model Complexity

3.2 Under- and Overfitting

3.2.1 Regularization

3.2.2 Shrinkage Priors

3.3 Duality of the Ridge Regression

4 Model Setup and Derivation

Mathematical derivation of TGP into frequentist view?

5 Simulation Section

Use the earlier derivation, code up the functions and simulate data to check behaviour for different datasets. Compare to base OLS, Ridge and Lasso Regression?

5.1 Computational Performance

5.2 Implementation as R Package?

6 Small Applied Section

Here I am planning to apply the TGP using Peter's Bayesian Package and the self coded frequentist code on a small dataset.

7 Conclusion

8 Possible Extensions and Criticism

9 References