

Efficient Gaussian Processes for data-driven decision making



Vincent Dutordoir

Department of Engineering
University of Cambridge

Report submitted to be registered for the PhD Degree
First-Year-Report

I would like to dedicate this thesis to my loving parents ...

Declaration

I hereby declare that except where specific reference is made to the work of others, the contents of this dissertation are original and have not been submitted in whole or in part for consideration for any other degree or qualification in this, or any other university. This dissertation is my own work and contains nothing which is the outcome of work done in collaboration with others, except as specified in the text and Acknowledgements. This dissertation contains fewer than 65,000 words including appendices, bibliography, footnotes, tables and equations and has fewer than 150 figures.

Vincent Dutordoir

August 2021

Acknowledgements

I would like to thank my advisor Dr. Carl Henrik Ek, and my supervisor Professor Zoubin Ghahramani for their guidance and support during the first year of my PhD degree. Their advice has greatly shaped the form of this thesis, and at the same time it has also been a pleasure to work with them.

Abstract

This is where you write your abstract ...

Table of contents

1	Introduction	1
---	--------------	-------------------

Chapter 1

Introduction

$x \in \mathcal{X}$
hello worlds [Neal, [1992](#)]
 \mathcal{GP}
 \mathbb{R}
 μ

$$k(x, x') = \sum_i \lambda_i \phi_i(x) \phi_i(x') \tag{1.1}$$

References

Radford M. Neal (1992). “Bayesian Mixture Modeling”. In: *Maximum Entropy and Bayesian Methods*.