UNIVERSITY OF CALIFORNIA

Los Angeles

Test

Text

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A dissertation submitted in partial satisfaction

of the requirements for the degree

Doctor of Philosophy in Mathematics

by

Bumsu Kim

2023

ABSTRACT OF THE DISSERTATION

Test

Text

Here

by

Bumsu Kim

Doctor of Philosophy in Mathematics

University of California, Los Angeles, 2023

Professor Stanley J. Osher, Chair

(Abstract omitted for brevity)

The dissertation of Bumsu Kim is approved.

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2023

To GGG ...

who—among so many other things—

ABCDEFG

abcdefg

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

ACKNOWLEDGMENTS

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PUBLICATIONS

Bumsu Kim, HanQin Cai, Daniel McKenzie, and Wotao Yin. Curvature-Aware Derivative-Free Optimization. *arXiv preprint arXiv:2109.13391 (2021).*

Bumsu Kim, and Wotao Yin. Bridging the Gap Between Local and Global Derivative-Free Optimization. *In Preparation.*

CHAPTER 1

Introduction

For text, let's use the first words out of the ispell dictionary.

aback abaft abandon abandoned abandoning abandonment abandons abase abased abasement abasements abases abash abashed abashes abashing abasing abate abated abatement abatements abater abates abating abbe abbey abbey's abbeys abbot abbot's abbots abbreviate abbreviated abbreviates abbreviating abbreviation abbreviations abdomen abdomen's abdomens abdominal abduct abducted abduction abduction's abductions abductor abductor's abductors abducts abed aberrant aberration aberrations abet abets abetted abetter abetting abeyance abhor abhorred abhorrent abhorrer abhorring abhors abide abided abides abiding abilities ability ability's abject abjection abjections abjectly abjectness abjure abjured abjures abjuring ablate ablated ablates ablating ablation ablative ablaze able abler ablest ablute ably abnormal abnormalities abnormality abnormally aboard abode abode's abodes abolish abolished abolisher abolishers abolishes abolishing abolishment abolishment's abolishments abolition abolitionist abolitionists abominable aboriginal aborigine aborigine's aborigines abort aborted aborting abortion abortion's abortions abortive abortively aborts abound abounded abounding abounds about above aboveground abrade abraded abrades abrading abrasion abrasion's abrasions abreaction abreactions abreast abridge abridged abridges abridging abridgment abroad abrogate abrogated abrogates abrogating abrupt abruptly abruptness