ADJOINT-BASED OPTIMIZATION AND INVERSE DESIGN OF PHOTONIC
DEVICES

A DISSERTATION
SUBMITTED TO THE DEPARTMENT OF APPLIED PHYSICS
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OF STANFORD UNIVERSITY
IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE DEGREE OF
DOCTOR OF PHILOSOPHY

Tyler William Hughes
May 2019

I certify that I have read this dissertation and that, in my opinion, it is fully adequate in scope and quality as a dissertation for the degree of Doctor of Philosophy.

_____

(Shanhui Fan)    Principal Adviser

I certify that I have read this dissertation and that, in my opinion, it is fully adequate in scope and quality as a dissertation for the degree of Doctor of Philosophy.

_____

(Robert L. Byer)

I certify that I have read this dissertation and that, in my opinion, it is fully adequate in scope and quality as a dissertation for the degree of Doctor of Philosophy.

_____

(Olav Solgaard)

I certify that I have read this dissertation and that, in my opinion, it is fully adequate in scope and quality as a dissertation for the degree of Doctor of Philosophy.

_____

(Mark Brongersma)

I certify that I have read this dissertation and that, in my opinion, it is fully adequate in scope and quality as a dissertation for the degree of Doctor of Philosophy.

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(Amir Safavi-Naeini)

Approved for the Stanford University Committee on Graduate Studies

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# Preface

This thesis tells you all you need to know about...

# Acknowledgments

I would like to thank...

# Contents

# List of Tables

# List of Figures

# Chapter 1

# Introduction

An introduction in a separate file.

# Chapter 2

# Conclusions

...

# Appendix A

# A Long Proof

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