

TOPICS IN TWO-SAMPLE TESTING

A DISSERTATION
SUBMITTED TO THE DEPARTMENT OF STATISTICS
AND THE COMMITTEE ON GRADUATE STUDIES
OF STANFORD UNIVERSITY
IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE DEGREE OF
DOCTOR OF PHILOSOPHY

Nelson C. Ray

201?

© Copyright by Nelson C. Ray 201?
All Rights Reserved

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.

(Susan P. Holmes) 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.

(Persi W. Diaconis)

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.

(Bradley Efron)

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.

(Jerome H. Friedman)

Approved for the University Committee on Graduate Studies.

Contents

1	Stein's method	1
1.1	Approximate computation of expectations	1

Chapter 1

Stein's method

In this chapter we present an introduction to Stein's method of exchangeable pairs which we use to prove the core theoretical result of this thesis: a rate of convergence bound for the randomization distribution.

1.1 Approximate computation of expectations