

## Table of Contents

Preface	
Introduction	
Chapter I, first part: Review of potential theory in $\mathbb{R}^n$ .....	Page 1
1. Green's function and Poisson kernel for domains in $\mathbb{R}^n$	
2. Boundaries	
3. Lemma for harmonic functions	
4. Characterization of Poisson integrals	
5. Maximal functions	
6. Local Fatou theorem and area integral	
Chapter I, second part: .....	15
Review of some topics in several complex variables	
7. Bergman kernel, Szegő kernel, and Poisson-Szegő kernel	
8. The unit ball in $\mathbb{C}^n$	
Additional references for Chapter I	
Chapter II. Fatou's theorem .....	32
9. The first maximal inequality and its application	
10. The second maximal inequality and its application	
References for Chapter II	
Chapter III. Potential theory for strictly pseudo-convex domains....	54
11. Potential theory in the context of a preferred Kahlerian metric	
12. The area integral and the local Fatou theorem	
References for Chapter III	
Bibliography .....	70