

## Contents

Introduction . . . . .	1
Chapter I. <u>Preliminaries</u> . . . . .	14
1. The cone of positive hyperharmonic functions . . .	14
2. Semibounded potentials . . . . .	19
3. Balayage of measures. Base, thinness, and fine topology . . . . .	25
Chapter II. <u>Capacity in axiomatic potential theory</u> . . . .	32
4. The domination axiom . . . . .	32
5. The set functions $\hat{R}_1^*$ , $\int \hat{R}_1^* dm$ , and $R_1^*(x_0)$ . . .	40
6. The functionals $\hat{R}_1$ , $\int \hat{R}_1 dm$ , and $R_1(x_0)$ . . . .	48
7. Balayage on intersections of finely closed sets . .	61
Chapter III. <u>Finely harmonic and finely hyperharmonic functions</u> . . . . .	67
8. Definitions and examples . . . . .	67
9. Fundamental properties . . . . .	76
10. Finely superharmonic functions and fine potentials	100
11. Balayage and specific multiplication relative to a finely open set . . . . .	118
Chapter IV. <u>Applications</u> . . . . .	146
12. Properties involving fine connectivity and balayage of measures . . . . .	146
13. On the balayage of semibounded potentials . . . .	162
14. The fine Dirichlet problem . . . . .	170
15. An application to the study of the Choquet property . . . . .	178
References . . . . .	186