

TABLE OF CONTENTS

CHAPTER I. A Quantitative Theory of Uniform Distribution . . . . .	1
§ 1. The uniform distribution of a sequence in an interval or in a cube . . . . .	1
§ 2. Roth's Theorem . . . . .	10
§ 3. Proof of Roth's Theorem . . . . .	16
§ 4. A Theorem of Davenport . . . . .	22
§ 5. The correct order of magnitude of $\Delta(n)$ in the one- dimensional case . . . . .	28
§ 6. A question of Erdős . . . . .	37
§ 7. The scarcity of intervals with bounded error . . . . .	42
CHAPTER II. The Method of Integral Equations . . . . .	56
§ 1. A theorem on balls . . . . .	56
§ 2. Setting up an integral equation . . . . .	60
§ 3. Differentiating the integral equation . . . . .	64
§ 4. Solving the integral equation . . . . .	68
§ 5. A good distribution of points . . . . .	72
§ 6. Balls contained in the unit cube . . . . .	74
§ 7. Rectangles in arbitrary position . . . . .	82
§ 8. Solving the integral equation for rectangles . . . . .	86
§ 9. Triangles . . . . .	93
§ 10. Points on a sphere . . . . .	96
§ 11. The integral equation for spherical caps . . . . .	98

§ 12. Points with weights . . . . .	106
§ 13. Convex sets . . . . .	107
§ 14. Comparison of different discrepancies . . . . .	110
§ 15. Proof of Theorem 14D by "successive sweeping" . . . . .	114
§ 16. Open problems . . . . .	123
<b>BIBLIOGRAPHY . . . . .</b>	<b>126</b>