

CONTENTS

Introduction

Part I: The concentration of measure phenomenon in the theory of normed spaces

1. Preliminaries	1
2. The isoperimetric inequality on S^{n-1} and some consequences	5
3. Finite dimensional normed spaces, preliminaries	9
4. Almost euclidean subspaces of a normed space	12
5. Almost euclidean subspaces of ℓ_p^n spaces, of general n -dimensional normed spaces, and of quotient of n -dimensional spaces	19
6. Levy families	27
7. Martingales	33
8. Embedding ℓ_p^m into ℓ_1^n	42
9. Type and cotype of normed spaces, and some simple relations with geometrical properties	51
10. Additional applications of Levy families in the theory of finite dimensional normed spaces	60

Part II: Type and cotype of normed spaces

11. Ramsey's theorem with some applications to normed spaces	69
12. Krivine's theorem	77
13. The Maurey-Pisier theorem	85
14. The Rademacher projection	98
15. Projections on random euclidean subspaces of finite dimensional normed spaces	106

Appendices

I. Isoperimetric inequalities in Riemannian Manifolds by <i>M. Gromov</i>	114
II. Gaussian and Rademacher averages	130
III. Kahane's inequality	134
IV. Proof of the Beurling-Kato Theorem 14.4	137
V. The concentration of measure phenomenon for Gaussian variables	140
 Notes and Remarks	 144
 Index	 149
 References	 151