

# Preface

During the last two decades the following volumes containing the proceedings of the Israel Seminar in Geometric Aspects of Functional Analysis appeared

- 1983-1984 Published privately by Tel Aviv University
- 1985-1986 Springer Lecture Notes, Vol. 1267
- 1986-1987 Springer Lecture Notes, Vol. 1317
- 1987-1988 Springer Lecture Notes, Vol. 1376
- 1989-1990 Springer Lecture Notes, Vol. 1469
- 1992-1994 Operator Theory: Advances and Applications, Vol. 77, Birkhauser
- 1994-1996 MSRI Publications, Vol. 34, Cambridge University Press
- 1996-2000 Springer Lecture Notes, Vol. 1745.

Of these, the first six were edited by Lindenstrauss and Milman, the seventh by Ball and Milman and the last by the two of us.

As in the previous volumes, the current one reflects general trends of the Theory. The connection between Probability and Convexity continues to broaden and deepen and a number of papers of this collection reflect this fact. There is a renewed interest (and hope for solution) in the old and fascinating slicing problem (also known as the hyperplane conjecture). Several papers in this volume revolve around this conjecture as well as around some related topics as the distribution of functionals, regarded as random variables on a convex set equipped with its normalized Lebesgue measure. Some other papers deal with more traditional aspects of the Theory like the concentration phenomenon. Finally, the volume contains a long paper on approximating convex sets by randomly chosen polytopes which also contains a deep study of floating bodies, an important subject in Classical Convexity Theory.

All the papers here are original research papers and were subject to the usual standards of refereeing.

As in previous proceedings of the GAFA Seminar, we also list here all the talks given in the seminar as well as talks in related workshops and conferences. We believe this gives a sense of the main directions of research in our area.

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