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Probability Theory on Vector Spaces III
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Edited by D. Szynal and A. Weron

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"With each passing biennium, the subject of probability in vector spaces makes more and more impressive gains"

Anatole Beck

PREFACE

The third conference on Probability Theory on Vector Spaces took place in Lublin (Poland) during August of 1983. This conference was sponsored by the Maria Skłodowska-Curie University at Lublin and was organized by the following committee: Z. Rychlik, D. Szynal (chairman) and A. Weron.

This volume contains 26 contributions and complements the material in the two earlier volumes, Springer's Lecture Notes in Math. vol. 656(1978) and vol. 828(1980). We completely agree with Professor Beck's statement taken from the introduction to the proceedings of the conference on Probability in Banach spaces III, Springer's Lecture Notes in Math. vol. 860(1981). His first conference organized in Oberwolfach in 1975 motivated us to organize our own meetings, however we have never intended to compete with Professor Beck's conferences but rather to extend the influence of this new theory. Since there are vector spaces, being natural spaces of sample paths of stochastic processes, which are no longer Banach it is desirable to develop probability theory on general vector spaces.

Two most popular topics of our 1980 conference: stable measures and multidimensional stochastic processes are also present in this volume. The 60th anniversary of Paul Lévy's paper "Théorie des erreurs, La Loi de Gauss et les Lois exceptionnelles", Bull. Soc. Math. France 52(1924), 49-85, initiating the theory of stable distributions is celebrated by four contributions (Hazod, Linde, Rajput & Rama-Murthy, and Weron). Seven papers (Dettweiler, Ferreyra, Leskow, Niemi, Pourahmadi & Salehi, Russek and Shonkweiler) are devoted to vector valued processes and Hilbert space methods in stochastic processes. Readers interested in this subject should consult also the Pesi Masani volume "Harmonic Analysis and Prediction", North-Holland 1983, edited by V. Mandrekar and H. Saléhi. Different problems related to limit theorems on Hilbert, Orlicz, Banach or even Polish spaces are studied by (Heinkel, Inglot & Jurlewicz, Ledoux, Rychlik, Rychlik & Szyszowski, and Szynal & Kuczmaszewska). A new feature of this conference are papers (Hensz, Goldstein & Żuczak, and Jajte) on ergodic theorems for von Neumann algebras.

Aleksander Weron

Baton Rouge, April 1984
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