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Sommario/riassunto

"In this monograph, the author presents univariate and multivariate probabilistic inequalities with coverage on basic probabilistic entities like expectation, variance, moment generating function and covariance. These are built on the recent classical form of real analysis inequalities which are also discussed in full details. This treatise is the culmination and crystallization of the author's last two decades of research work in related discipline. Each of the chapters is self-contained and a few advanced courses can be taught out of this book. Extensive background and motivations for specific topics are given in each chapter. A very extensive list of references is also provided at the end. The topics covered in this unique book are wide-ranging and diverse. The opening chapters examine the probabilistic Ostrowski type inequalities, and various related ones, as well as the largely discusses about the Grothendieck type probabilistic inequalities. The book is also about inequalities in information theory and the Csiszar's f-Divergence between probability measures. A great section of the book is also devoted to the applications in various directions of Geometry Moment Theory. Also, the development of the Grèuss type and Chebyshev-Grèuss type inequalities for Stieltjes integrals and the applications in probability are explored in detail. The final chapters discuss the important real analysis methods with potential applications to stochastics. The book will be of interest to researchers and graduate students, and it is also seen as an invaluable reference book to be acquired by all science libraries as well as seminars that conduct discussions on related topics.": P.[4] of cover

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