

# Contents

<b>Contributors</b>	v
<b>Dedication</b>	vii
<b>Preface</b>	viii
<b>CONCENTRATION AND GEOMETRIC ASPECTS OF HDP</b>	
<b>On weighted isoperimetric and Poincaré-type inequalities</b> <i>Sergey G. Bobkov and Michel Ledoux</i>	1
<b>A note on positive definite norm dependent functions</b> <i>Alexander Koldobsky</i>	30
<b>Gaussian approximation of moments of sums of independent symmetric random variables with logarithmically concave tails</b> <i>Rafał Łatała</i>	37
<b>Gaussian integrals involving absolute value functions</b> <i>Wenbo V. Li and Ang Wei</i>	43
<b>FUNCTIONAL CLT AND EMPIRICAL PROCESSES</b>	
<b>Weak invariance principle and exponential bounds for some special functions of intermittent maps</b> <i>Jérôme Dedecker and Florence Merlevède</i>	60
<b>Interpolation spaces and the CLT in Banach spaces</b> <i>Jim Kuelbs and Joel Zinn</i>	73
<b>Uniform Central Limit Theorems for pregaussian classes of functions</b> <i>Dragan Radulović and Marten Wegkamp</i>	84
<b>A note on bounds for VC dimensions</b> <i>Aad van der Vaart and Jon A. Wellner</i>	103
<b>LIMIT THEOREMS</b>	
<b>Limit theorems and exponential inequalities for canonical <math>U</math>- and <math>V</math>-statistics of dependent trials</b> <i>Igor S. Borisov and Nadezhda V. Volodko</i>	108
<b>Functional Limit Laws of Strassen and Wichura type for multiple generations of branching processes</b> <i>Jim Kuelbs and Anand N. Vidyashankar</i>	131
<b>On Stein's method for multivariate normal approximation</b> <i>Elizabeth Meckes</i>	153
<b>RANDOM MATRICES AND RELATED PROBLEMS</b>	
<b>A remark on the maximum eigenvalue for circulant matrices</b> <i>Włodek Bryc and Sunder Sethuraman</i>	179
<b>On the longest increasing subsequence for finite and countable alphabets</b> <i>Christian Houdré and Trevis J. Litherland</i>	185

<b>Some results on random circulant matrices</b> <i>Mark W. Meckes</i> . . . . .	213
<b>STOCHASTIC PROCESSES</b>	
<b>Conditional expectations and martingales in the fractional Brownian field</b> <i>Vladimir Dobrić and Francisco M. Ojeda</i> . . . . .	224
<b>Stochastic compactness of Lévy processes</b> <i>Ross Maller and David M. Mason</i> . . . . .	239
<b>An almost sure limit theorem for Wick powers of Gaussian differences quotients</b> <i>Michael B. Marcus and Jay Rosen</i> . . . . .	258
<b>Bernstein inequality and moderate deviations under strong mixing conditions</b> <i>Florence Merlevède, Magda Peligrad and Emmanuel Rio</i> . . . . .	273
<b>ASYMPTOTIC STATISTICS</b>	
<b>Asymptotic distribution of the most powerful invariant test for invariant families</b> <i>Miguel A. Arcones</i> . . . . .	293
<b>Uniform in bandwidth consistency of kernel regression estimators at a fixed point</b> <i>Julia Dony and Uwe Einmahl</i> . . . . .	308
<b>Asymptotics of statistical estimators of integral curves</b> <i>Vladimir Koltchinskii and Lyudmila Sakhanenko</i> . . . . .	326
<b>Uniform central limit theorems for sieved maximum likelihood and trigonometric series estimators on the unit circle</b> <i>Richard Nickl</i> . . . . .	338