



## **The Scope**

*This monograph aims at presenting the core weak convergence theory for sequences of random vectors. In some places, a more general formulation in metric spaces is provided.*

*It lays out the necessary foundation that paves the way to applications in particular sub-fields of the theory. In particular, the needs of Asymptotic Statistics are addressed. A whole chapter is devoted to weak convergence in  $R$  where specific tools, for example for handling weak convergence of sequences using independent and identically distributed random variables such that the Renyi's representations by means of standard uniform or exponential random variables, are stated.*

*The functional empirical process is presented as a powerful tool for solving a considerable number of asymptotic problems in Statistics. The text is written in a self-contained approach with the proofs of all used results at the exception of the general Skorohod-Wichura Theorem.*

**The authors.** *Professor Gane Samb LO (PhD, 1986, Paris VI) has been teaching Measure and Integration, Probability Theory, Mathematical Statistics and Applied Statistics for decades in the University Gaston Berger of Saint-Louis (Sénégal) and in several African Universities. He is also author of series a books published or to be published in SPAS EDS.*

*Dr Modou Ngom (PhD 2017, UGB) participated in the project of the book while preparing his PhD thesis under the supervision of Prof Gane Samb Lo.*

*Dr Tchilabola Abozou Kpanzou (PhD 2011, University of Stellenbosch, SA) is professor in the University of Kara (Togo). He is also a collaborator of Prof Gane Samb Lo in writting a large scale series of teaching books and research monographs in Probability and Statistics as well as research papers*



**ISBN 978-2-9559183-1-9**