國 立 清 華 大 學 數 學 系 學 術 演 講
NTHU MATH Colloquium

講題　　Complete Convergence of Sums of Rowwise Independent Random Elements in Type p Banach Space

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時間　　2021.7.1 (Thur.) 15:00 – 16:00

地點　　預計使用線上直播，直播連結於演講開始前會公布在數學系網頁：**http://www.math.nthu.edu.tw/**

Abstract

In this thesis, we investigate the complete convergence for row sums of arrays of row-wise independent random elements taking values in type p separable Banach spaces. First, we introduce basic definitions and properties of random elements taking value in separable Banach spaces and type p separable Banach spaces. And we introduce the basic concept of complete convergence of random elements and their improvement and describe and prove several necessary inequalities.Then, being inspired by the Kolmogorov three-series theorem, we obtain two complete convergence theorems for arrays of random elements taking values in type p separable Banach spaces. Then provide several criteria of complete convergences for some particular cases of random element arrays. We also investigate complete convergences of row-wise weighted sums for arrays of random elements. And then, we construct four illustrative examples to explain those works in previous Chapters. In the end, we summarize and provide a possible direction for study in the future.

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