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Volume 37, Issue 4, July 2017, Pages 1019-1032Conditional expectations and martingales in noncommutative L_p -spaces associated with center-valued traces (Article)GANIEV, I.^a [✉](#), MUKHAMEDOV, F.^b [✉](#)^aDepartment of Science in Engineering, Faculty of Engineering, International Islamic University Malaysia, P.O. Box 10, Kuala-Lumpur, Malaysia^bDepartment of Mathematical Sciences, College of Science, United Arab Emirates University, Al Ain, Abu Dhabi, United Arab Emirates

Abstract

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In this paper we prove the existence of conditional expectations in the noncommutative $L_p(M, \Phi)$ -spaces associated with center-valued traces. Moreover, their description is also provided. As an application of the obtained results, we establish the norm convergence of weighted averages of martingales in noncommutative $L_p(M, \Phi)$ -spaces. © 2017 Wuhan Institute of Physics and Mathematics

Author keywords

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