

ICRAMCS 2026

THE EIGHTH EDITION OF THE INTERNATIONAL CONFERENCE ON
RESEARCH IN APPLIED MATHEMATICS AND COMPUTER SCIENCE

April 23-24-25, 2026 | Marrakech, Morocco



CONVERGENCE OF SET-VALUED PETTIS INTEGRABLE MILS AND SUPERPRAMARTS

Communication Info

Authors:

Nordine LATIFI¹
Mohamed EL HARAMI²

¹ Higher School of Technology,
Laboratory LMI, FSM, Meknes,
Morocco

² Higher School of Technology,
Laboratory LMI, FSM, Meknes,
Morocco

Keywords:

- (1) Set-valued mil
- (2) Superpramart
- (3) Pettis integration

Abstract

The convergence of a multivalued martingale in the limit (mil) in the case when the space has the Radon–Nikodym property and its dual is separable has been studied by Castaing and Ezzaki [1].

In this paper we established new convergence results for set-valued Pettis integrable mils and superpramarts whose values are weakly compact convex subsets of a separable Banach space does not have the Radon–Nikodym property in linear topology. The notion of mils is more general than that of martingale. Every martingale is a mil, but the converse is not generally true; see Egghe [2].

The results presented in this paper extend the results in Bochner case cited in Krupa [3].

© ICRAMCS 2026 Proceedings ISSN: 2605-7700

References

- [1] Castaing, C. and Ezzaki, F., Some convergence results for multivalued martingales in the limit, *Sém. Anal. Convexe Montpellier*, (1990) Exposé no. 1, 32 pp.
- [2] Egghe, L., Stopping time technique for analysts and probabilists, *London Math Society Lecture Vol:100*, (1984).
- [3] Krupa, G., Convergence of multivalued mils and pramarts in spaces without the RNP, *Studia Scientiarum Mathematicarum Hungarica*, Vol:40, (2003), p. 289-297.