

## Existence Result of Third Order Functional Random Integro-Differential Inclusion

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**Abstract :** The FRIGDI (functional random integrodifferential inclusion) seems to be new and includes several known random differential inclusions already studied in the literature as special cases have been discussed in the literature for various aspects of the solutions. In this paper, we prove the existence result for FIGDI under the non-convex case of multi-valued function involved in it. Using random fixed point theorem of B. C. Dhage and caratheodory condition. This result is new to the theory of differential inclusion.

**Keywords :** caratheodory condition, random differential inclusion, random solution, integro-differential inclusion

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