

**Title:** Multivariate stochastic integrals with respect to independently scattered random measures on  $\delta$ -rings

Author(s): Dustin Kremer and Hans-Peter Scheffler

In this paper we construct general vector-valued infinitely-divisible independently scattered random measures with values in  $\mathbb{R}^m$  and their corresponding stochastic integrals. Moreover, given such a random measure, the class of all integrable matrix-valued deterministic functions is characterized in terms of certain characteristics of the random measure. In addition, a general construction principle is presented.

## Address:

Dustin Kremer Department Mathematik Universität Siegen 57068 Siegen Germany

Address: Hans-Peter Scheffler Department Mathematik Universität Siegen 57068 Siegen Germany