1092-60-104    **Andreas Basse-O'Connor** and **Jan Rosinski\*** (`rosinski@math.utk.edu`), Department of Mathematics, University of Tennessee, Knoxville, TN 37996. *On the Uniform Convergence of Random Series In Skorohod Space with Applications to Volterra-type Processes.*

The Itô–Nisio Theorem connects the weak convergence of finite dimensional distributions of certain processes with the almost sure pathwise convergence. It implies that various series expansions of a Brownian motion, and of other sample continuous Gaussian processes, converge uniformly pathwise. In order to obtain the uniform convergence for series expansions of sample discontinuous processes, we prove an extension of the Itô–Nisio Theorem to Skorohod space of càdlàg functions in [1]; such an extension was surprisingly lacking in the literature. The main difficulties of dealing with the Skorohod space in this context are its non-separability under the uniform metric and the discontinuity of addition under Skorohod's $J_1$-topology. We illustrate our results providing applications to Volterra stable processes.

# References

[1] A. Basse-O'Connor and J. Rosiński, *On the uniform convergence of random series in Skorohod space and representations of càdlàg infinitely divisible processes.* Ann. Probab., to appear.