

ON GENERALIZED POLYNOMIAL CHAOS EXPANSIONS

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Polynomial chaos expansions were introduced by N. Wiener in order to represent nonlinear functionals of the stochastic process of Brownian motion. Such expansions and generalized versions of them are used nowadays for example for the solution of differential equations with random parameters or for Monte-Carlo simulations of stochastic processes. In the talk basic properties of generalized polynomial chaos expansions are studied, in particular convergence properties.

REFERENCES

- [1] O. G. Ernst, A. Mugler, H.-J. Starkloff, E. Ullmann, *On the convergence of generalized polynomial chaos expansions*, submitted.