

# Approximations of stochastic differential equations in Banach spaces

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Randomized estimates for operators have played a great role in analysis in Banach spaces since the work of Marcinkiewicz and Zygmund. In the nineties Bourgain, Kalton and Weis among others used randomized estimates for families of operators to prove multiplier theorems and develop an  $H^\infty$ -calculus in Banach spaces. More recently, Van Neerven, Veraar and Weis have demonstrated that randomized estimates for families of operators play an important role in the theory of stochastic PDE's in Banach spaces. Moving further into the "dirty" world of applications I will sketch how  $R$ -bounded families play a role in numerical approximation of stochastic PDE's in Banach spaces.