Weak numerical convergence rates for stochastic differential equations with nonglobally monotone coefficients

Martin Chak

Sorbonne University, France

martin.chak@sorbonne-universite.fr

Order one weak convergence rates are presented for SDEs with nonglobally monotone coefficients approximated by the stopped increment-tamed Euler-Maruyama scheme. Regularity results for associated Kolmogorov equations are also presented but a more direct argument requiring weaker assumptions is given based on the Itô-Alekseev-Gröbner formula.