Institute for Applied Mathematics, Bonn University

Oberseminar Stochastik

Thursday, 22 October 2026, 16:30
Lipschitz-Saal (LWK 1.016)

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Limitations of nonreversible lifts for subgeometric diffusions

We study the effect of lifting on convergence rates characterised by a series of weak Poincaré-type inequalities and derive a bound on the acceleration that can be obtained through lifting. We present several examples to explore the sharpness of our derived bound, where the resulting bound has the same square-root order as in the spectral-gap setting. Our results provide a framework for understanding the potential and limitations of non-reversible lifting beyond geometric convergence.