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New and robust drift approximations for the LIBOR market model

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Abstract

We present four new methods for approximating the drift in the LIBOR market model when performing very long steps. These are compared with a variety of existing methods, including PPR, Glasserman–Zhao and predictor–corrector. We find that two of them, which use correlation adjustments to better approximate the drift, are more effective than existing methods.

Keywords:

Financial mathematics | Financial modelling | Financial simulation | Financial engineering | Derivatives pricing | Derivative pricing models