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**An Infinite-Dimensional Interest Rates Term Structure Model:**  
**Arbitrage-Free, Realistic and Practical**

**Abstract**

We present a new infinite-dimensional model of interest rates term structure within the Heath-Jarrow-Morton framework and its infinite-dimensional extension by Filipovic. Usual term structure models (e.g. Nelson-Siegel) don't allow for consistent stochastic dynamics: these models will cause arbitrage when modified to include any stochastic dynamics of their parameters. Usual finite-dimensional stochastic models (e.g. Cox-Ingersoll-Ross or Hull-White) cannot offer a flexible enough snapshot yield curve. We "marry" the snapshot fitting possibilities of static models and the temporal variability of dynamic models at the price of going infinite-dimensional. The model is nevertheless fully practicable and applicable on the real data. We present evidence from the Russian bond market before and during the crisis.