


复旦大学数学科学学院
数学综合报告会

报告题目：**A Unifying Volatility Smile Model - Black-Scholes versus Black**

报告人：Dr. Dong Qu (屈冬宁)

报告时间：2017-06-27 星期二 15:50-16:50

报告地点：光华东主楼 1501

摘要：From practical application perspective, many interest rate smile models are complex and smile calibration processes are numerically intensive. This presentation will discuss a new type of interest rate smile model that can be made as efficient as the equivalent equity or FX smile model. By postulating a spot Libor process and using the numeraire-change technique, the Dupire-style local volatility stripping from market quotes (implied volatility smile) becomes possible in the asset class of interest rate. The model includes the formulation of a self-contained backward pricing PDE which can be used to price path-dependent interest rate derivatives with smile. This type of Libor smile model can also be an ideal candidate for incorporating interest rate volatility smile in hybrids.

非线性数学模型与方法教育部重点实验室
中法应用数学国际联合实验室
上海市现代应用数学重点实验室
复旦大学数学研究所