

Venue: MathFInance office Mainluststrasse 4, 60329 Frankfurt

## MathFinance Flow Event: FX Volatility 101 Exam

## MathFinance Flow: Start the Conversation with an Expert



In relaxed after-work atmosphere our experienced Consulting team will pass the FX Volatility 101 Exam with you. Alexander Stromilo, Andreas Weber and Uwe Wystup will present their current findings.

If you are interested in attending please email to info@mathfinance.com.

The event is by invitation only and is free of charge. As a courtesy to other interested participants, kindly inform us ahead of time should you be unable to attend.

## Abstract:

FX volatility market data originates from OTC transactions/quotations from major market makers, typically quoted as at-the-money volatilities, risk reversals and butterflies in some currency pair dependent conventions. Data providers collect these data, convert or treat them in a proprietary way, potentially average them and often make results available in their own standardized currency-pair independent conventions.

In this flow we would like to increase awareness of the issues arising from the fact that market data varies in quality and format depending on the provider and averaging methods. Data providers we consider include Reuters, DigitalVega, Tulletts, and SuperDerivatives, and they all have their own characteristics. Subsequently, if a quant's job is to build a smooth and ideally arbitrage-free volatility surface, we show how FX smile conventions need to be treated, how different interpolation techniques handle the input data. We will present some graphs that allow visual detection of butterfly- and calendar-arbitrage.





Some topics for discussion include short dated volatilities:



cubic spline based interpolations can cause oscillations and potentially non unimodal probability densities: spline vs. parameterized curve.



SVI traps: potentially, SVI may imply a negative probability density even if the curve looks perfect by visual inspection.



info@mathfinance.com