

# Asymmetry and fat-tails in financial time series

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**Assertions (Stellingen)**

Accompanying the thesis

# **Asymmetry and fat-tails in financial time series**

by Sébastien Laurent

1. An attractive feature of the skewed Student density is that it can be symmetric and even gaussian.
2. Ox is definitely a good deal for econometricians, both for research and teaching. Indeed, a complete version is available for free on the internet.
3. My coauthors become more and more my friends.
4. Applied econometricians should continue to share their program codes. Utilizing these codes is the best way to learn new topics in econometrics.
5. It is very frustrating to have to wait abnormal delays to have comments on a paper submitted to a refereed journal. To solve this problem, editors should give incentives to the referees.
6. In general, to reduce the volatility on the Forex market, central bank intervene when the volatility is low... The consequence is that the volatility increases.
7. The web is the biggest library of the world. In this respect, out of hundreds web sites dealing with GARCH models, G@RCH's web site is the most visited one ... by my coauthors.
8. Riskmetrics is probably the easiest and most popular way to badly forecast the conditional variance.
9. The most difficult thing when you propose a new family of ARCH models is to find a name that sounds good.
10. The local wine offered to the speaker after the econometric seminar is a good incentive to do research.
11. Programming the analytical scores of the skewed Student is required if you want to work properly. However, if you are only concerned by speed gains, this is certainly not interesting and you should prefer numerical techniques to compute them. Indeed, with a sample size of about 4000 observations, while it takes about 20 seconds to obtain the estimates using the numerical gradients, it takes about 8 seconds using the analytical scores. But you have to program the analytical scores, and it can take several hours.