

# Hawkes-type stochastic volatility model

**Łukasz Treszczotko**<sup>1</sup>

<sup>1</sup> University of Warsaw

We introduce a Hawkes-like process and study its scaling limit as the system becomes increasingly endogenous. Then, we introduce a high-frequency model for the price of traded asset in which the nearly unstable regime leads to a Heston-type process in which the negative correlation between the price and the volatility can be caused by relatively high variance of the sell side intensity.