# Pricing under Rough Volatility Models Lab Report

Vega Institute Foundation Spring 2022

#### Abstract

In the present paper we investigate the roughness of the Russian stock market in the context of the rough stochastic volatility model. We obtain the biased estimation of the Hurst parameter and the Zumbach effect. We also obtain an estimation of a bias using modern approaches in Data Science and Applied Statistics. In the end we form the conclusion that the rough volatility model is a XXX working model for the Russian stock market and formulate the future research horizon.

**Keywords:** Rough Volatility, RFSV Model, Zumbach Effect, Hurst Parameter, Equity, MOEX

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### 1 Introduction

2 Description of the Model

3 Statistical Analysis

### 4 Conclusion

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