



BA/SA:

## Market Efficiency on Decentralized Exchanges

The usage of blockchain-based applications running on Ethereum and other blockchains has skyrocketed in the past year. This is in large part due to the rise of Decentralized Finance (DeFi) applications.<sup>1</sup> These allow users to perform a number of financial activities, e.g. trading and lending, in a decentralized manner. Among the most popular DeFi applications are Decentralized Exchanges (DEXs) such as Uniswap, SushiSwap or Curve. The centerpieces of these DEXs are liquidity pools which are smart contracts running on a blockchain. On the one hand, traders can swap one kind of token for another with these liquidity pools. On the other hand, liquidity providers can deposit their capital into liquidity pools and earn a share of the trading fees.

DEXs have recently seen explosive growth in about any measurable metric: number of DEXs, number of pools, number of traded tokens, trading volume, etc. By now, the number of liquidity pools is almost countless: on different blockchains, on different decentralized exchanges and for different token pairs. But how well do these markets work, and how mature are they? In this thesis, we will try to measure the market efficiency on decentralized exchanges and study how it has developed.



**Requirements:** This project will involve programming in a language of your choice, preferably Python. Interest in finance and blockchain is a plus. We will have weekly meetings to discuss open questions and determine the next steps.

**Interested? Please contact us for more details!**

### Contacts

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<sup>1</sup>For an introduction into DeFi check out this course: <https://defi-learning.org/>