Automated Market Makers

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Background
P2P Exchanges

- Order-book exchanges require middle-man
P2P Exchanges

- Sometimes exchanges fail or are delayed

Looking to Buy

Looking to Sell
Market Maker Exchanges

● Middle-man is smart contract
Market Maker Exchanges

- Liquidity providers can provide stake...
Market Maker Exchanges

- Immediate execution of trades

Some spare change...

Trading is so easy...
Uniswap

$xy = k$
Balancer (Multiple Assets)
Our Work
AMM Axioms

- Smooth exchange
- Stable
- Expressive
- Convex
Serial Composition

- WBTC \(\rightarrow\) AMM \(\rightarrow\) AMM \(\rightarrow\) Token
- WBTC \(\rightarrow\) AMM \(\rightarrow\) Token
Parallel Composition
Current Work
Cross-chain AMMs
Handling Frontrunning

TX1

TX2

TX Pool

TX1

TX2

AMM
Questions?