is a weekly collection of papers, articles and resources related to MEV. The intention of this letter is to provide a comprehensive summary of the latest research, discussions, and developments in the space, with links for further reading.

## **Papers & Articles**

- Introducing Rollup-Boost Launching on Unichain by Flashbots announces Rollup-Boost as a platform for rollup extensions like verifiable block building, fast confirmation times, strong user guarantees, and MEV internalization; powering the upcoming Unichain.
- Thread by @Hasu
- Thread by @bert
- Thread by @dmarz
- Thread by @shea
- Thread by @Hasu
- Thread by @bert
- Thread by @dmarz
- Thread by @shea
- <u>Unichain an Ethereum L2 designed for DeFi</u> by <u>Uniswap Labs</u> announces <u>Unichain</u> as a fast, decentralized Superchain L2 that's designed for DeFi and liquidity across chains.
- <u>Unichain Whitepaper</u> by <u>Hayden Adams, Xin Wan, Zach Wong, @Hasu, Mark Toda, Daniel Gretzke, @dmarz, Karl Floersch, Alex Karys, Eric Zhong, @bert, and Dan Robinson</u>
- Thread by Uniswap Labs
- Post by <u>Hayden Adams</u>
- · Thread by Optimism
- Thread by Uniswap Foundation
- Unichain Whitepaper by Hayden Adams, Xin Wan, Zach Wong, @Hasu, Mark Toda, Daniel Gretzke, @dmarz, Karl Floersch, Alex Karys, Eric Zhong, @bert, and Dan Robinson
- Thread by Uniswap Labs
- Post by <u>Hayden Adams</u>
- · Thread by Optimism
- Thread by <u>Uniswap Foundation</u>
- TEE-enabled Social Games: An Experiment with Bobu's Magic Showby @sxysun, Ryan MacArthur, Roshan Palakkal, and @socrates1024 outlines the technical implementation of Azuki's livestreamed magic show using Teleport to tweet from the audience's accounts.
- Post by @socrates1024
- Post by @socrates1024
- <u>Using TEEs for Social</u> by <u>@2pmflow</u> details how <u>Azuki</u> and <u>Flashbots</u> used TEEs to securely enable one-time tweet permission.
- Post by @2pmflow
- Post by @2pmflow
- <u>Abracadabra! Flashbots and Hallway Reshape Entertainment with Azuki</u> by <u>WHIZWANG</u> describe how <u>Azuki</u>,
   <u>Flashbots</u>, and <u>Hallway</u> collaborated on a <u>livestreamed magic show</u>, leveraging <u>Teleport</u> and AI for an interactive community experience.
- Thread by WHIZWANG

- Thread by WHIZWANG
- Zero Trust Execution Environments by @Quintus, Sylvain Bellemare, @jonathan, and @socrates1024 discuss the limitations of existing secure hardware and the need for advancements to meet the growing demands of Web3, AI, and other industries.
- Forum post by @Quintus
- Thread by @Quintus
- Forum post by @Quintus
- Thread by @Quintus
- BONKbot's Secure Signer Architecture: Dedicated TPM-based System with WASM signing verification vs. TEEsby
   @willvillanueva details BONKbot's use of a TPM-based system for transaction signing, and compares it to TEE-based approaches in terms of security, verifiability, and performance.
- MEV Capture Through Time-Advantaged Arbitrage by Robin Fritsch, Maria Inês Silva, Akaki Mamageishvili, Benjamin Livshits, and Edward W. Felten analyzes the impact <u>Timeboost</u> on arbitrage opportunities in AMMs, and compares it to FCFS and PGA.
- · Forum post by Akaki Mamageishvili
- · Forum post by Akaki Mamageishvili
- How to Remove the Relay by Charlie Noyes and Guru Vamsi Policharla details how silent threshold encryption could enable private and direct communication between builders and proposers, without the need for relays.
- Thread by Charlie Noyes
- Thread by Charlie Noyes
- Possible futures of the Ethereum protocol, part 1: The Mergeby Vitalik Buterin explores potential improvements to
  optimize Ethereum's PoS by reducing finality times and lowering the staking threshold.
- Modeling Security for Cross Rollup Interoperability by shakeshack outlines a security model for cross-rollup interoperability.
- <u>Uncrowdability of FOCIL</u> by <u>Julian Ma</u> details how <u>FOCIL</u> is designed to prevent the outsourcing of IL construction rights to centralized entities.
- <u>Uniswap, Flashbots, and OP-Stack: The Trinity Behind Unichain</u> by <u>100y.eth</u> covers the announcement of <u>Unichain</u> and how it's designed to improve rollup scalability and address MEV.
- Thread by 100y.eth
- Thread by 100y.eth
- MEV Maestro Yoink Netting \$2.65M on 59 Blocks in August by EigenPhi details how the searcher-builder "I can haz block?" earned 1061 ETH through arbitrage and liquidations across 59 blocks in August.
- · Thread by EigenPhi
- Thread by EigenPhi
- Introducing the Arrakis DVMM: DeFi's First MEV-Aware Onchain Market Maker by Arrakis Finance outlines the design of their Decentralized Vertically-Integrated Market Maker (DVMM) to reduce MEV and enhance profitability for LPs.
- Thread by Arrakis Finance
- Thread by [Hilmar

](https://x.com/hilmarxo)

- Thread by Arrakis Finance
- Thread by [Hilmar

](https://x.com/hilmarxo)

## **Posts & Threads**

- <u>@stephen</u> continued the <u>series of threads</u> exploring successful searcher strategies:
- Day 11: 100 Eth builder profit block
- Day 12: 111 When CoWSwaps are mediocre
- Day 13: EIGEN transferability unlock
- Day 11: 100 Eth builder profit block
- Day 12: 111 When CoWSwaps are mediocre
- Day 13: EIGEN transferability unlock
- <u>Gideon</u> published a <u>post</u> detailing how <u>Flashbots</u> and <u>Azuki</u> leveraged TEEs to securely create one-time tweet access to over 300 community members while ensuring integrity and confidentiality of user data.
- <u>Itamar</u> published a <u>thread</u> to highlight how <u>Unichain</u> is marking a significant advancement in rollup sequencing rules through <u>Rollup-Boost</u>.
- Alex Nezlobin published a thread arguing that <u>Timeboost</u> is more harmful to LPs than a comparable PGA by giving arbitrageurs more time to exploit price deviations.
- PBS Foundation published a thread compiling key resources related to MEV and PBS.
- <u>EigenPhi</u> published a <u>thread</u> detailing the distribution of rewards in the MEV supply chain with data from thei<u>Builder</u> <u>Performance Analysis dashboard</u>.

## **Talks & Discussions**

- Introducing Unichain. Built on the Superchain with Chase Chapman, Hayden Adams, and Karl Floersch discuss the launch of <u>Unichain</u> and how it's optimized for DeFi and interoperability.
- <u>Bankless</u>: <u>Announcing Unichain | DeFi's Next Frontier</u>? invites <u>Hayden Adams</u> and <u>Karl Floersch</u> to talk about the design of <u>Unichain</u>, liquidity, and rollup interoperability.
- <u>Interview: Verifiable Crypto-Physically Secure TEEs</u> invites <u>Sylvain Bellemare</u>, <u>Julio Linares</u>, and <u>@Quintus</u> to discuss the limitations of current TEEs, potential solutions using PUFs, and the need for more open-source collaboration in hardware security.
- · Notes by Gideon
- Notes by Gideon
- The Gwart Show: Ethereum's North Star invites Mike Neuder to discuss the Ethereum roadmap, Unichain, MEV, and PBS, and more.
- Post by Blockspace Media
- Post by Mike Neuder
- Post by Blockspace Media
- Post by Mike Neuder
- PROF: Protected Order Flow in a Profit-Seeking World by Kushal Babel at Intersubjective Rhizomeby Kushal Babel
  outlines how PROF is designed to limit harmful forms of MEV by enforcing transaction ordering in existing PBS
  systems.
- <u>Multiple Concurrent Proposers</u> by <u>Max Resnick</u> outlines inefficacies in DeFi and how MCP is designed to improve market structures.
- <u>Unaligned Day 2024</u>: <u>Roasting Leader-based Preconfig Designs by Murat Akdeniz discusses <u>Leaderless and Leader-Based Preconfirmations</u>, their trade-offs, and potential combinations.
  </u>
- Ethereum Sequencing and Preconfirmations Call #15 hosted by <u>Justin Drake</u> includes updates on preconfirmation from <u>Puffer, Rome, Taiko, Nethermind, Commit-Boost, Espresso</u>, and <u>mev-commit</u>.
- ePBS (EIP-7732) breakout room #11 hosted by Potuz covered the latest progress and implementation status of EIP-7732.

- Notes by Terence Tsao
- Notes by Terence Tsao

## **Other**

- How to Become a Filler? by banri details the process of becoming a Filler on UniswapX by handling intents and executing token swaps on behalf of users.
- Thread by Titania Research

](https://titaniaresear.ch/)

• Thread by Titania Research

](https://titaniaresear.ch/)

[Sign up here

](https://flashbots.net/the-mev-letter) if you'd like to get The MEV Letter straight to your inbox!

[Previous editions of The MEV Letter

](https://collective.flashbots.net/tag/the-mev-letter)[Join Flashbots

](https://www.flashbots.net/jobs)