The MEV Letter

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

- Conditional-Recall by @Christoph and @sxysun demonstrates how selective forgetting through conditional recall unlocks new mechanism design for information markets, bargaining, and more.
- Forum post by @Christoph
- Presentation: Conditional Recall by @Christoph and @sxysun at Devcon SEA
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- Exploring Sophisticated Execution Proposers for Ethereum by Julian Ma investigates whether it is possible to unbundle the role of execution block proposer from other validator duties and create a new, specialized class of service providers that fulfills the role of execution proposer.
- Post by Julian Ma
- Post by Julian Ma
- Accelerate L2 Interoperability: Update #0 by Josh Rudolf emphasizes the importance of solving L2 interoperability, outlining progress and next steps to enable fast and secure cross-chain communication.
- Post by Josh Rudolf
- Post by Josh Rudolf
- Faster block/blob propagation in Ethereum by Potuz proposes using RLNC to replace Ethereum's gossipsub protocol in order to reduce latency, bandwidth, and improve block propagation.
- Post by Potuz
- Post by Potuz
- Ahead-of-Time Block Auctions To Enable Execution Preconfirmations by Irfan Shaik discusses execution preconfirmation and approaches for gateway design.
- Preconfirmation for the Average Joe by Ceciliaz_ describes the potential of preconfirmations for users, validators, applications, and wallets.
- [2025 Annual Guide] Crypto Data Engineering Guide by Andrew Hong provides a comprehensive guide with tools and methodologies for extracting and handling Ethereum data.
- Thread by Andrew Hong
- Thread by Andrew Hong
- A Brief History of Decentralized Order Flow Acquisition by DevenMat explores the progression of order flow primitives in DEXes, from liquidity pool-specific UIs to aggregators and OFAs.
- Thread by Valantis Labs
- Thread by Valantis Labs
- Securing TEE Apps: A Developer's Guide by Prateek Reddy, Roshan, linguine, and krane details how TEEs enhance security for sensitive computation, and outlines best practices for building secure applications.
- Post by bedlam research
- Post by bedlam research
- Future of Ethereum (1): Beam Chain by Seungmin Jeon explores the Beam Chain proposal by Justin Drake, upgrading the consensus layer to achieve faster finality, shorter block times, quantum security, and chain snarkification.
- Thread by Seungmin Jeon

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- 2024 Year in Review by Kofi reviews patterns and trends in the ERC-4337 ecosystem across Ethereum L1 and L2s.

Posts & Threads

- @hariseldon published a post introducing Proof of Physics where the security of the network is determined by the validator's geographical decentralization.
- Facundo Indabera published a post examining Espresso's approach to shared sequencing, its marketplace design, consensus protocol, and MEV redistribution.
- Terence Tsao published a post showcasing an implementation of FOCIL on Prysm.
- Thomas Thiery published a post visualizing the percentage of honest validators needed for all transactions, including censored ones, to be included under FOCIL.
- Pratyush Ranjan Tiwari published a post commenting on Georgios Konstantopoulos article on 5 Levels of Secure Hardware, and the complexity of achieving an open manufacturing process for secure hardware.
- IC3 published a thread highlighting 10 papers from IC3-members in 2024 related to cryptography, blockchain, and DeFi.
- PBS Foundation published a thread to recap upgrades to the Ethereum protocol and proposals published in 2024.
- pcaversaccio published a thread celebrating SEAL 911's accomplishments in tackling threats and attacks in 2024, with approximately $75M saved.
- Primev published a thread summarizing their milestones in 2024 and what's next in 2025.

Talks & Discussions

- Native Rollups Call #0 hosted by mteam discussed execution environments which are embedded into Ethereum L1, inheriting its security and composability.
- Let's Talk: E5 invites Jünger to discuss based rollups, Taiko, and how TEEs can be used to enhance L2 proof systems.

Other

- reth private transaction by Querty extends Reth with a custom RPC method that allows users to bypass the public mempool and send transactions directly to the top 3 builders.

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