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

- Measuring Arbitrage Losses and Profitability of AMM Liquidity by Robin Fritsch and Andrea Canidio presents the results of an empirical study that shows how the majority of Uniswap LPs incur losses due to LVR that are greater than their earned fees, and explore the potential impact of longer block times.
- Thread by Andrea Canidio
- Thread by Andrea Canidio
- For All Intents And Purposes: On The Agency And Duties Of Solvers by Laurence E. Day analyzes the legal implications of intent-based architectures and third-party solvers.
- MB-Direct: An idea for MEV-Boost improvement by Quintus Kilbourn outlines some changes to how MEV-Boost works that allows for improvement in the security and efficiency and the system, and serve as an out-of-protocol test for ePBS.
- Thread by Quintus Kilbourn
- Thread by Quintus Kilbourn
- Uncrowdable Inclusion Lists: The Tension between Chain Neutrality, Preconfirmations and Proposer Commitments by Julian Ma, Barnabé Monnot, and Thomas Thiery investigates ways to prevent additional use cases of ILs, such as preconfirmations and PEPC, to could crowd out their intended purpose of improving censorship resistance.
- More pictures about proposers and builders by Barnabé Monnot introduces APS-Burn as an alternative allocation mechanism to Execution Tickets to achieve attester-proposer separation.
- Post by Barnabé Monnot
- Post by Barnabé Monnot
- Anatomy of CEX/DEX Arbitrage by atiselsts.eth analyzes the dynamics of CEX/DEX arbitrage and simulates how block times and base fees impact LPs and searchers.
- Reducing latency games by levelling the playing field on block size for PBS by Antony Denyer examines the tendency of builders to not fill their blocks, and suggests implementing a gas floor target to prevent the underutilization of block space.
- Vanilla Based Sequencing by George Spasov and Daniel Ivanov presents a mechanism designed to solve the cold start problem of low proposer participation in based sequencing.
- ePBS Annotated Validator Spec by Terence Tsao annotates the ePBS Validator specification and explains the changed validator duties.
- Analyzing Blob Inclusion Rates and Market Strategies by Primev analyzes blob market dynamics and blob posting strategies used by rollups, and outlines some potential improvements.
- Thread by Primev
- Thread by Primev
- Titan Relay Launch on Ethereum Mainnet by Titan Relay announces the launch of the Titan Relay as a rust-based relay designed for high performance, global distribution, and robustness.
- Thread by Titan Relay
- Thread by Titan Relay
- Introducing Atlas Backruns by Jacob Greene presents Atlas Backruns as a permissionless backrun OFA that doesn't require PBS, and is compatible with all L2s.
- Thread by Jacob Greene
- Thread by Jacob Greene

- Post Mortem: Augustus V6 Vulnerability of March 20th, 2024 paraswap by ParaSwap details a whitehat rescue across 8 chains and the actions performed to circumvent frontrunning bots.

Posts & Threads

- mempirate published a thread detailing Chainbound's work on ROP-8 that studies the geographical distribution of Ethereum validators.
- Michael published a thread to present findings from running the MEV-Boost fork Adagio

by Chorus One with insights on timing games, centralization, latency and more.

- Yoni published a thread to announce the addition of historical MEV-Boostbids and payloads from September 2023 onwards in the public data collection by Eden Network.

Talks & Discussions

- Dynamic Transaction Fee Mechanism Design by Max Resnick discusses how time sensitive transactions are impacted by EIP-1559 and proposes slowing down the base fee update to reduce delays and lower gas fees.
- Paper: Dynamic Transaction Fee Mechanism Design by Mallesh Pai and Max Resnick
- Paper: Dynamic Transaction Fee Mechanism Design by Mallesh Pai and Max Resnick
- The Delphi Podcast: Decentralization Unleashed: The Astria Approach to Rollup Sequencing invites Josh Bowen to discuss the evolving landscape of rollups, the advantages of shared sequencers, and Astria.

Other

- Request for SUAPP: Squatters' auction by Shea Ketsdever describes a SUAPP that would improve markets for digital goods that are prone to squatting, like domains and reservations.
- Request for SuApp: Decentralized TLS server by Andrew Miller outlines a SUAPP for decentralized TEE-based Frame servers where the TLS private key is generated within a Kettle enclave.
- Request for SuApp: SuAvalon by Andrew Miller requests a game in the style of Werewolf, Avalon, Mafia, etc., where players have hidden information and hidden roles, which sometimes rely on a game master to coordinate.
- brock/chatNFT by brock is a SUAPP to mint NFTs on Ethereum using ChatGPT to generate the NFT's data.
- Request for SUAPP: Call ChatGPT and mint an NFT with the response by Robert Miller
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Upcoming Events

- May 6th

: Agentic Markets Pre-game: LLM Routing hosted by Flashbots, Martian, and Edge will be a session focused on LLM Routing

for researchers and engineers building marketplaces for agents. *Post by Xinyuan Sun

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