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

- On the Redistribution of Maximal Extractable Value: A Dynamic Mechanism by Pedro Braga, Georgios Chionas, Stefanos Leonardos, Piotr Krysta, Georgios Piliouras, Carmine Ventre propose a dynamic mechanism to balance users and proposers welfare through MEV, inspired by the design principles of EIP-1559.
- Thread by Georgios Chionas
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- The Cost of Permissionless Liquidity Provision in Automated Market Makers by Julian Ma, Davide Crapis present a game theoretic model of simultaneous liquidity provision by passive LPs, showing that competition between LPs causes a loss in total LP welfare that grows linearly with the number of passive LPs.
- Thread by Julian Ma
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- The more, the less censored: Introducing committee-enforced inclusion sets (COMIS) on Ethereum by Thomas Thiery, Francesco D'Amato and Barnabé Monnot introduce an inclusion lists design that shifts the inclusion responsibilities from a single proposer to a committee.
- Thread by Thomas Thiery
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- Integrating SUAVE with Astria Rollups by itamar proposes a method of integrating SUAVE bundle construction into the Astria shared sequencer to reduce MEV on Celestia-based rollups.
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- How to Raise the Gas Limit, Part 1: State Growth by Storm Slivkoff, Georgios Konstantopoulos delves into the intricacies of Ethereum's state growth and block gas limit through empirical data.
- Thread by Storm Slivkoff
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- Crypto-Powered Information Games by Benjamin Funk explores the trends of data monetization and information games and describes how SUAVE can facilitate decentralized, trustless information markets.
- Demonstration of SUAVE oracle by Miha Lotric presents a PoC implementation of a Binance price oracle that's updated via contracts on SUAVE and settled on Goerli.
- Protecc'ed Execution on Orderflow by dmarz discusses a method for executing transactions without leaking information or compromising data integrity through SUAVE.
- Emit Solidity events during off-chain computation by Ferran present a new functionality in suave-geth to emit onchain events generated during the offchain computations on the Kettle.
- Reconsidering the market structure of PBS by Barnabé Monnot shares thoughts related to current ePBS and execution tickets discussions, distinguishing proposing rights from building rights, and their corresponding markets.
- Why aren't transactions landing on chain? by Antony Denyer explores the economics of block building and investigates why some transactions are discarded by some builders.
- Beyond the Basics: The Unanticipated Advantages of ePBS by Potuz outlines positive externalities of ePBS like the potential of slot auctions.
- Securing off-chain services by Prabhu Eshwarla explores the trust models of deploying off-chain services in TEEs to enhance security and integrity.

Posts & Threads

- vita published a thread that describe their plan to build a frequent batch auction on SUAVE as described in the forum post by Alphaist.
- Valentin published a thread to announce the launch of mev.fyi with 1000+ papers, articles, docs, and videos, including recordings from ETHDenver.
- Potuz published a thread that seeks input from searchers and builders on the implications of ePBS on bid privacy.

Potuz published a thread that describes how sequencers can delay their publication of L2 blocks to extract MEV through a vertically integrated L1 builder.

Talks & Discussions

- ETHDenver:
- The Cost of Artificial Latency in a PBS Context by Michael Moser
- What Happens if a MEV-Boost Relay Goes Rogue? by Auston Sterling
- The New Era of Transaction Observability: Deciphering MEV's Shifting Value Landscape by Ye Wang
- Encryption Tools for MEV Protection in DeFi on Any Blockchain by Liam McDonald
- Sharing a Sequencer Is Caring About Interoperability by Ben Fisch
- Opportunities for the Ethereum Mempool by Joseph Poon
- Frontrunning Hacks: Bound to Become Irrelevant by Odysseas Lamtzidis
- MEV Smoothing Pools: A No Brainer for the Solo Staker and Small LSDs by Pol Lanski
- Capturing Oracle Extractable Value Through Specialized OFAs by Ugur Mersinlioglu
- Business of Block Space Pt. 2: Mevconomics by Will Nuelle
- Preconfirmations on Mainnet by Murat Akdeniz
- Build a Searcher Bot to Capture MEV Using the OEV Network by Billy Campana
- The Cost of Artificial Latency in a PBS Context by Michael Moser
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- Financial Cryptography and Data Security 2024:
- Short Paper: Shared Sequencing and Latency Competition as a Noisy Contest by Jan Christoph Schlegel
- Paper by Akaki Mamageishvili and Jan Christoph Schlegel
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- DeFi composability as MEV non-interference by Riccardo Marchesin

- Paper by Massimo Bartoletti, Riccardo Marchesin and Roberto Zunino
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- The Power of Default: Measuring the Effect of Slippage Tolerance in Decentralized Exchanges by Robert McLaughlin and Nir Chemaya
- Paper by Nir Chemaya, Dingyue Liu, Robert McLaughlin, Nicola Ruaro, Christopher Kruegel, and Giovanni Vigna
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- Optimal Dynamic Fees for Blockchain Resources by Shouqiao Wang
- Paper by Davide Crapis, Ciamac C. Moallemi and Shouqiao Wang
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- Does Proposer-Builder Separation Preserve Decentralization?
- Paper by Maryam Bahrani, Pranav Garimidi and Tim Roughgarden
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- The Costs of Swapping on the Uniswap Protocol by Xin Wan
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- Scraping Bits: How A Web3 Solo Searcher Discovers Long Tail MEV Strategies invites Taker to discuss warstories, how to find long tail strategies, LP sniping, and more.
- Bankless: Ethereum's New Frontier Has Arrived invites Justin Drake and Ben Fisch to discuss shared- and based sequencing, rollup sovereignty, MEV redistribution, and Espresso Systems.
- RollCall #3.1 Breakout - Shared Sequencing by Justin Drake gives an overview of shared- and based sequencing and what MEV-Boost would look like with preconfirmations.

- Slides by Justin Drake
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- Unchained: Famed White Hat Hacker Samczsun on How to Improve Crypto Security invites samczsun to discuss the Security Alliance hotline for immediate response during active exploits as well as security measures individuals should take to protect themselves.

Other

- mev-boost v1.7 by Flashbots has been released as the Deneb ready release for mainnet.
- Add new rules on block scoring excluding withdrawals by Alex Stokes implements mev-boost improvement proposal #0 to exclude withdrawals to fee recipients when relays computes a payload's value.
- Anvil for MEVM external provider by brock presents a fork of foundry that implements suavex_call

in anvil, to make it easier to test SUAPPs locally.

- mev by CHANCE is an open-source and modular Typescript framework for building MEV strategies.
- Post by CHANCE
- Thread by CHANCE
- Post by CHANCE
- Thread by CHANCE
- State of MEV Report - Request for Comments by Ariiellus presents their initiative to write a report on the current state of MEV and request feedback on the outline and topics.
- Flashbots SUAVE Bot by Flashbots posts notifications when new topics are published in theSUAVE-category on the Flashbots collective forum.

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