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

- Quantifying the Value of Revert Protection by Brian Zhu, Xin Wan, Ciamac C. Moallemi, Dan Robinson, and Brad Bachu presents a game-theoretic model to quantify the value of revert protection (RP) in priority auctions, and demonstrates that offering users RP can improve market efficiency and increase

total fee revenue. * Thread by Ciamac C. Moallemi

- Thread by Ciamac C. Moallemi
- Short Paper: Atomic Execution is Not Enough for Arbitrage Profit Extraction in Shared Sequencers by Maria Inês Silva, and Benjamin Livshits presents a model to assess arbitrage profits under atomic execution across two CPMM pools, and demonstrate that switching to atomic execution does not always improve profits.
- Post by Benjamin Livshits
- Post by Benjamin Livshits
- Harvesting Layer-2 Yield: Suboptimality in Automated Market Makers by Krzysztof Gogol, Manvir Schneider, and Benjamin Livshits explores the inefficiencies of LPing in AMMs, and details how L1 pools generally underperform pools on L2s, and staked ETH.
- Thread by Krzysztof Gogol
- Post by Benjamin Livshits
- Thread by Krzysztof Gogol
- Post by Benjamin Livshits
- Cross-Rollup MEV: Non-Atomic Arbitrage Across L2 Blockchains by Krzysztof Gogol, Johnnatan Messias, Deborah Miori, Claudio Tessone, and Benjamin Livshits has been updated with data analyzing price discrepancies across rollups, and non-atomic MEV.
- Post by Benjamin Livshits
- Post by Benjamin Livshits
- Pricing Factors and TFMs for Scalability-Focused ZK-Rollups by Stefanos Chaliasos, Nicolas Mohnblatt, Assimakis Kattis, and Benjamin Livshits explores proposed transaction fee mechanisms for ZK-Rollups and suggests alternative approaches for improved scalability and security.
- Possible futures of the Ethereum protocol, part 2: The Surge by Vitalik Buterin explores Ethereum's strategy to scale via L2s and data availability sampling, while maintaining decentralization and security.
- Possible futures of the Ethereum protocol, part 3: The Scourge by Vitalik Buterin details centralization risks in Ethereum due to MEV, and discuss alternatives in block construction and staking economics.
- Possible futures of the Ethereum protocol, part 4: The Verge by Vitalik Buterin comments on advancements in stateless clients, Verkle trees, STARKs, SNARKs, and quantum resistance.
- Introducing PBH: Priority Blockspace for Humans by World introduces World Chain's mainnet launch, Priority Blockspace for Humans (PBH) and Rollup-Boost for external block production.
- Thread by Liam Horne
- Thread by Liam Horne
- A New Era of DeFi with App-Specific Sequencing by Yuki Yuminaga discusses how Application-Specific Sequencing enables dapps to take control of transaction ordering and mitigate MEV to protect users.
- Thread by Sorella Labs
- Thread by Ludwig
- Thread by Sorella Labs

- Thread by Ludwig
- The Reports of my Death are Greatly Exaggerated or Why Sequencer Decentralization Matters? by Toghrul Maharramov argues that decentralization in rollups is crucial for achieving liveness, censorship resistance, and strong preconfirmation guarantees.
- Practical endgame on issuance policy by Anders Elowsson outlines two potential reward curves for Ethereum's issuance policy to stop staking growth while guaranteeing proper consensus incentives and positive incentives for small solo stakers.
- Thread by Anders Elowsson
- Thread by Anders Elowsson
- Decentralising the trade supply chain by Propeller Heads discusses how the complexity of DeFi's trade supply chain drives centralization, and suggests simplifications to market making, solving, and trading.
- Post by Propeller Heads
- Post by Propeller Heads
- Trusted Execution Environments (TEEs) in Appchains by P2 Ventures explores the use of TEEs in chains like Unichain to improve security and performance, while innovations like PUFs could eliminate reliance on chip manufacturers.
- Post by Sylvain Bellemare
- Post by Sylvain Bellemare
- Introducing Conduit G2: The World's Most Powerful Sequencer by Andrew Huang, Henry Updegrave announces the launch of Conduit G2, a high-performance sequencer that offers 50-100 Mgas/s throughput.
- Thread by Conduit
- Thread by Andrew Huang
- Thread by Conduit
- Thread by Andrew Huang
- Titan, Beaver, and Rsync Gave 85% of Rewards to Validators. How Are These Two Searcher-Builders Holding on to 50%? by EigenPhi examines how the searcher-builders Yoink and c0ffeebabe.eth manages to retain around 50% of their builder rewards, in contrast to other builders who pay validators 85%.
- Thread by EigenPhi
- Thread by EigenPhi
- Upcoming Ethereum Upgrades & Catalysts by Christine Kim provides an overview of Pectra, including timeline, scope, and the impact on validators, network performance, and L2s.
- HOT, the MEV-Aware AMM Built to Empower LPs, Is Live by Arrakis Finance announces the launch of HOT as an intent-centric AMM built on Valantis, designed to minimize MEV and offer better returns for LPs.
- Thread by Arrakis Finance
- Thread by Hilmar
- Thread by mrs kzg.eth
- Thread by GlueX Protocol
- Thread by Arrakis Finance
- Thread by Hilmar
- Thread by mrs kzg.eth
- Thread by GlueX Protocol
- How mev-commit's Privacy Protocol Protects Intra-block MEV Information Leaks by Primev details how mev-commit is designed to enable secure and private preconfirmations.
- Thread by Primev

- Thread by Primev

Posts & Threads

- Frieder Erdmann published a thread outlining a TEE EVM as a new TEE built on the EVM for secure and private computation.
- Mazh published a post detailing how the Azuki and Flashbots collaboration leverages TEEs to enable secure, private interactions, protecting users' data and ensuring confidentiality.
- Toni Wahrstätter published a post to highlight the centralization of block building due to private order flow and its implications on censorship resistance and multi-slot MEV
- Chorus One published a post detailing how preconfirmations via Commit-Boost will improve the speed, security, and reliability of transactions.
- PBS Foundation published a thread to highlight their curated list of resources related to PBS and MEV.

Talks & Discussions

- Ethereum Singapore: Gas Markets & Ethereum Hyperscaling with Kevin Lepsoe, Wee Howe Ang, Laszio Szabo, and Artemly Parshakov discuss gas markets, PBS, orderflow, and preconfirmations.
- Indexed Podcast: Censorship Resistance w/ Thomas Thiery [PBS Series EP3] invites Thomas Thiery to dive into censorship resistance, ILs, and the future of Ethereum.
- Post by Indexed Podcast
- Post by Indexed Podcast
- Autonomous TEE Stakeholder Meeting: Stakeholder Meeting invites Zheng Leong Chua, Tanmay Goel, Sylvain Bellemare, and Shelven Zhou to discuss the next generation of TEEs, and a joint effort to build secure, open-source TEEs to decentralize confidential computing.
- Post by Poetic Technologies
- Post by Poetic Technologies
- The Gwart Show: Sequencing and Layers With Thogard invites Alex Watts for a conversation on MEV, PBS, MCP, and FastLane.
- Post by Blockspace Media
- Post by Blockspace Media
- The Rollup: How Espresso Aims To Solve The L2 Fragmentation Problem invites Ellie Davidson to discuss how Espresso's sequencing marketplace and fast finality layer are designed to enhance cross-chain composability while preserving sovereignty.
- Into The Bytecode. Andrew Huang on Conduit and scaling onchain compute invites Andrew Huang to talk about parallelized architectures for smart contracts and scaling sequencer throughput to 1 Ggas/s.
- Post by Sina Habibian
- Post by Sina Habibian
- Infinite Jungle: Understanding Anoma, An Intent Interface for Ethereum invites Adrian Brink to cover the timelines of Namada and Anoma, and how intent-based systems can address issues related to MEV and privacy.

Other

- Anoma by Anoma has been open-sourced as a reference implementation of the Anoma protocol.
- Thread by Anoma
- Thread by Anoma
- Q&A with Chris Spannos, Blockchain R&D Engineer by Conor Keville interviews Chris Spannos to discuss Ethereum

scaling, PBS, and their research into MEV on L2s.

- A look back at MEV Shanghai by vita shares their reflections from MEV Shanghai.
- Xatu Execution Layer data now available by Andrew Davis and Sam Calder-Mason announces the release of execution layer data from Ethereum genesis via cryo in the Xatu dataset.
- Thread by [ethPandaOps

](https://ethpandaops.io/)

- Thread by [ethPandaOps

](https://ethpandaops.io/)

[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)