

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

- [Mitigating MEV with FHE - Blind Arbitrage on Ethereum](#) by [@jonathan](#) presents a design that allows searchers to perform blind backruns using FHE.
- [Forum post](#) by [@jonathan](#)
- [Forum post](#) by [@jonathan](#)
- [PROF: Protected Order Flow in a Profit-Seeking World](#) by [Kushal Babel](#), [Nerla Jean-Louis](#), [Yan Ji](#), [Ujval Misra](#), [Mahimna Kelkar](#), [Kosala Yapa Mudiyansele](#), [Andrew Miller](#), and [Ari Juels](#) introduces a system to limit harmful forms of MEV by enforcing transaction ordering in existing PBS systems.
- [The Espresso Sequencing Network: HotShot Consensus, Tiramisu Data-Availability, and Builder-Exchange](#) by [Jeb Bearer](#), [Benedikt Bünz](#), [Philippe Camacho](#), [Binyi Chen](#), [Ellie Davidson](#), [Ben Fisch](#), [Brendon Fish](#), [Gus Gutoski](#), [Fernando Krell](#), [Chengyu Lin](#), [Dahlia Malkhi](#), [Kartik Nayak](#), [Keyao Shen](#), [Alex Xiong](#) and [Nathan Yospe](#) present the Espresso Sequencing Network for L2s, including the [HotShot Consensus](#), Tiramisu DA, and the Builder-Exchange mechanism.
- [Blog post](#) by [Espresso Systems](#)
- [Thread](#) by [Espresso Systems](#)
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- [ShardDAG: Ordering and Exploitation in Sharded Blockchains](#) by [James Henderson](#) details an architecture that addresses MEV challenges and censorship in state-sharded blockchains by enforcing a verifiable order for cross-shard transactions.
- [The Crypto Dark Pool Design Playbook](#) by [@yusufxyz](#) explores various designs for dark pools and private DeFi infrastructure, covering pre-execution privacy, order matching, liquidity sourcing, and compliance.
- [The Future of DeFi: Overcoming 3 Key Blockers for Mass Adoption—Insights from the SBC Conference](#) by [Krzysztof Gogol](#) discusses challenges that hinder the mass adoption of DeFi and how recent advancements presented at [SBC'24](#) seek to address these issues.
- [Bid cancellation in ePBS](#) by [Potuz](#) details how bid cancellations currently work in MEV-Boost, and why they are irrelevant under ePBS.
- [Proof of Service Integrity \(PoSI\): Trustless measurement of service integrity](#) by [peshwar9](#) presents a byzantine fault tolerant verification protocol for offchain activities, like block building.
- [Aori, Game Theory, and DeFi](#) by [joshua](#) describes the design of [Aori](#) and explores the future of DeFi and offchain infrastructure.
- [Guess Which Builder Took \\$8.2M From the Table During Black Monday?](#) by [EigenPhi](#) details how [beaverbuild](#) managed to earn 3.9K ETH during the market turmoil between Aug 3rd to Aug 5th.

Posts & Threads

- [Terence Tsao](#) published a [post](#) to outline some of the differences between [FOCIL](#) and [BRAID](#), noting BRAID's benefit of not requiring a committee, but having a higher implementation complexity.
- [Barnabé Monnot](#) published a [thread](#) commenting on the difference between [FOCIL](#) and [BRAID](#), highlighting the flexibility of FOCIL, and the leaderless block construction in BRAID.
- [Reply](#) by [Potuz](#)
- [Reply](#) by [Dan Robinson](#)
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- [Alex Watts](#) published a [thread](#) that examines how searchers might be impacted by MCP, and potential attacks by malicious proposers.
- [Frankie](#) published a [thread](#) expressing concerns of MCP related to potential timing games between proposers, and implementation complexities.
- [Reply](#) by [Doug Colkitt](#)
- [Reply](#) by [Doug Colkitt](#)
- [@bert](#) published a [post](#) to highlight a user receiving [7.7 ETH](#) in MEV refund via [Flashbot Protect](#).
- [Entropy Advisors](#) published a [thread](#) describing how faster block times on Arbitrum result in lower LVR for Uniswap LPs compared to Optimism.
- [Entropy Advisors](#) published a [post](#) of the new ATH in MEV revenue sent to proposers via MEV-Boost on Aug 5th.

Talks & Discussions

- [Recordings](#) from [MEV-SBC'24](#) hosted by [Flashbots](#) have been uploaded with talks that highlight MEV research from the past year, as well as new areas of research:
- [Oblivious RAM From Theory to Large Scale Adoption](#) by [Elaine Shi](#)
- [Privacy in DeFi Modularity, Grading, and Optimization](#) by [Tarun Chitra](#)
- [Programmable Privacy for MEV](#) by [@jonathan](#)
- [More Slides on Proposer Builder Separation](#) by [Mike Neuder](#)
- [Centralization in Attester Proposer Separation](#) by [Malleesh Pai](#)
- [Sailfish Towards Improving the Latency of DAG based BFT](#) by [Kartik Nayak](#)
- [Cross Rollup MEV Non Atomic Arbitrage Across Layer 2 Blockchains](#) by [Krzysztof Gogol](#)
- [Who Wins Ethereum Block Building Auctions and Why?](#) by [@sui414](#) and [Burak Öz](#)
- [Panel: The Incentives of Short Term Censorship Resistance](#) with [Max Resnick](#) and [@phil](#), moderated by [@Quintus](#)
- [MEV BooTEE: A TEE Approach to Partial Block Building](#) by [Oana Barbu](#)
- [Off-Chain Coordination via Liquefaction](#) by [James Austgen](#)
- [Using TEEs Without Trusting Them](#) by [Fan Zhang](#)
- [Agenda](#) by [@sarah.allen](#)
- [Oblivious RAM From Theory to Large Scale Adoption](#) by [Elaine Shi](#)
- [Privacy in DeFi Modularity, Grading, and Optimization](#) by [Tarun Chitra](#)
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- [Using TEEs Without Trusting Them](#) by [Fan Zhang](#)
- [Agenda](#) by [@sarah.allen](#)
- [Recordings](#) from [Sequencing x CAKE day](#) hosted by [OneBalance](#) and [Espresso Systems](#) are available with talks related to sequencing, preconfirmations, commitments, and chain abstraction.
- [Thread](#) by [OneBalance](#)
- [Thread](#) by [The Rollup](#)
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- [Thread](#) by [The Rollup](#)
- [Livestream recordings](#) of [The Science of Blockchain Conference 2024 \(SBC'24\)](#) by [IC3](#), [Stanford Center for Blockchain Research](#), and [UC Berkeley RDI](#) are available with talks on distributed systems, secure computing, crypto-economics, and more.
- [Recordings](#) of [Blockchain Applications Stanford Summit \(BASS\)](#) by [Stanford Blockchain Club](#), [Stanford Blockchain Accelerator](#) and [Crypto & Blockchain Alumni of Stanford](#) are available with talks on the application, engineering and entrepreneurship aspects of blockchain innovation.
- [Panel: Decentralized AI Agents](#) with [Xyn Sun](#), [Ron Bodkin](#), [Sishir Varghese](#), [Amlandeep Bhadra](#), [David Minarsch](#), and moderated by [Matt Stephenson](#) at [Summit on Responsible Decentralized Intelligence](#) hosted by [Berkeley RDI](#) discuss the interactions between AI agents and blockchains.
- [WTF is TEE?](#) hosted by [zoé mc](#) invites [Andrew Miller](#), [Alex Zaidelson](#), [Roshan](#), [Hang](#), [Will Wendt](#) for an introduction to TEEs in [a new series](#) of events dedicated to the topic.
- [The Gwart Show: Where Uri Solves MEV](#) invites [Uri Klarman](#) to discuss MEV, block building, MCP, and [Paladin](#).
- [Post](#) by [Blockspace Media](#)
- [Post](#) by [Blockspace Media](#)
- [Infinite Jungle: ACDC #139: The Role of ACD Call Chairs in Ethereum Governance](#) by [Christine Kim](#) summarizes [ACDC #139](#) which included discussions of Pectra, PeerDAS, and more.
- [Notes](#) by [Christine Kim](#)
- [Notes](#) by [Christine Kim](#)

Other

- [Trustless TEE update. August 24](#) by [@Quintus](#) presents the latest developments and challenges in designing a secure open-source TEE, as detailed in [Project T-TEE](#).
- [SUAVE Office Hours](#) by [@cryptrowanderer](#) announces a new series of calls launching on Aug 14th to discuss SUAPPs and how to build on SUAVE.
- [Flashwares vi: it's Lit](#) by [@mateusz](#) details a new [Flashwares](#) livestream on Aug 14th with [Harry Bairstow](#) to discuss [Lit Protocol](#)'s approach to TEEs and threshold encryption.
- [MEV-Boost community call #10 - 14 Aug 2024](#) by [@ralexstokes](#) invites the MEV-Boost community to discuss [mev-boost v1.8](#), [TEE-Boost](#), [EIP-7732](#), and more.

Upcoming events

- Aug 14

: [Flashwares vi: it's Lit](#) by [Harry Bairstow](#) and [@mateusz](#)

- Aug 14

: [SUAVE Office Hours](#) by [@dmarz](#) and [@cryptrowanderer](#)

- Aug 14

: [MEV-Boost community call #10](#) by [@ralexstokes](#)

- Aug 16-17

: [Frontiers](#) by [Paradigm](#) * [Thread](#) by [Georgios Konstantopoulos](#)

- [Thread](#) by [Georgios Konstantopoulos](#)

- Aug 20-27

: [MEV TOKYO](#) by [Titania Research](#) * [Thread](#) by [vita](#)

- [Thread](#) by [vita](#)

- Sept 19

: [TEE Unconference](#) by [Automata Network](#)

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