Flashbots @ EthCC 2024 Brussels

SBC Week is here!

Tune into the MEV SBC 2024 livestream today, Tuesday, August 6. And, if you are in town for the event, sign up for the Party this evening!

TEE-Week

The TEE was brewing all week long in Brussels for EthCC 2024.

Flashbots kicked off the week with Shea Ketsdever taking the stage at EthCC to discuss how trusted execution environments (TEEs) will play an important role in the future of block building. Shea's talk on the MEV Trilemma introduced Flashbot's latest R&D breakthrough, the TEE Builder; our fast, open-source rbuilder running in a TEE with a second price auction orderflow refund rule!

The TEE continued to flow on Thursday at the <u>TEE.Salon</u> which brought together experts from across open hardware, academia, and cryptography research. Andrew Miller and Ethan Buchman started the day with introductory presentations on TEEs, how they operate, and their security properties, followed by demos from Xin Sun and Moe Mahhouk. Explore all the videos below!

TEE was served to all attendees on Friday at Modular Summit 3.0 for Metagame.day. Curated by T.I.N.A., Metagame.day connected applications developers and protocol researchers and featured Vitalik's presentation on 'Ethereum as a Platform for Dapps, in 2015 and 2024'.

The final TEE was poured Saturday afternoon at DarkPool.Design researchathon in collaboration with PropellerHeads and Uniswap Foundation. We spec'd out a TEE UniV4 hook, dove into privacy properties for TEEs, and examined pricing mechanisms for TEE dark pools. Check out the videos below and readouts from Ken Ng and Lily Johnson and Filip Rezabek.

Flashbots at EthCC

Sunday, July 7

• Sequencing x CAKE Day - Dmarz

Monday, July 8

• Searcher.wtf - Shea Ketsdever

, TEE Builder

Tuesday, July 9

· Optimistic Gathering - Dmarz

, Interop: A Block Builders Perspective

slides

Towards a Brighter Future for Ethereum - Robert Miller

Wednesday, July 10

• EthCC - Shea Ketsdever

, MEV Trilemma

video]

- · Modular DeFi Day Tesa Ho
- · Rollup Day Rober Miller

, Where Rollups Go From Here

[video] [slides]

• FHE Summit - Jonathan Passerat-Palmbach

, MEV mitigation with (T)FHE

[video]

Thursday, July 11

- · TEE.Salon Andrew Miller
- , TEE Stack Potential, Reminder about Tech Debt, Bargaining Bots Concept

[video]

- TEE.Salon Shea Ketsdever
- , TEE Block Building

[video]

- TEE.Salon Moe Mahhouk
- , Intel TDX Demos

[video]

- TEE.Salon Xinyuan Sun & Ryan MacArthur
- , What applications do TEEs enable?

[video]

- · Liquidity.Salon Robert Miller
- , MEV & LVR Panel

[video]

Friday, July 12

- Modular Summit 3.0 Metagame.day Andrew Miller
- , The TEE Stack

[video] [slides]

- Modular Summit 3.0 Metagame.day Shea Ketsdever
- , MEV in 2025

[video] [slides]

- Modular Summit 3.0 Metagame.day Xin Sun
- , What apps are unlocked by the TEE Stack?

[video] [slides]

- Modular Summit 3.0 Metagame.day Dmarz
- , Modularitee Control your (Information) Flow

[video] [slides]

- Modular Summit 3.0 Metagame.day Dmarz
- , What application innovation can block building / solving / sequencing uniquely enable?

[Video]

- Modular Summit 3.0 Metagame.day Andrew Miller
- , Open TEE: 1st Step towards the Ideal Chips for Crypto

[Video]

Saturday, July 13

- DarkPool.design Researchathon, Tesa Ho, Christoph Schlegel, Dmarz
- · PBS Salon hosted by the PBS Foundation

Flashbots' Events

Liquidity.Salon

Hosted by Flashbots, PropellerHeads, and Uniswap Foundation

· Markus Schmitt

@PropellerHeads

, Making Onchain Liquidity Great Again

[video]

Ken Ng

@Uniswap

Foundation, UniV4 Hooks

Robert Miller, Max Resnick, Karthik, Ed, and Markus Schmitt

, MEV & LVR Panel

<u>video</u>

- Stephane Goselin, Vishwa, Kevin Wang, Rishabh Khurana, Arjun Bhuptani
- , Txn Supply Chain Composability Panel
 - Tarun Chitra, Anna Rose, Andrew Miller, Henry de Valence, Christopher Goes, Davie

, Information Flow Control Panel

[video]

TEE.Salon

Davie

@Poetic

Technologies, Supply chain security, TEEs and smart contracts

[resources]

Andrew Miller

@Flashbots

, TEE Stack Potential, Reminder about Tech Debt, Bargaining Bots Concept

<u>video</u>]

· Ethan Buchman

@Informal

Systems, Quartz: A privacy Preserving TEE Sidecar for CosmWASM

[video]

Sylvain Bellemare

@IC3

, qtee Moving Towards Open Source & Verifiable Secure-through-Physics TEE Chips

[video] · Tracy Livengood @Pluto , Web Proofs: Add internet data to onchain apps [video] · Michael Gao @Fabric Cryptography, Designing Open Processors for the Next Generation of Cryptography [video] · Shea Ketsdever @Flashbots , TEE Block Building [video] [slides] · Moe Mahhouk @Flashbots , Intel TDX Demos [video] · Xin Sun @Flashbots & Ryan MacArthur , What applications do TEEs enable? [video] · Hang Yin @Phala , TEE in Decentralized Al [video] · Zheng Leong @Automata , A complete Web3-based DCAP attestation framework [video] Modular Summit 3.0 - Metagame.day Metagame.day curated by T.I.N.A. for Day 2 Main Stage of Modular Summit 3.0, brought to you by Celestia and Maven 11. Chapter I. Application.wtf

@Cartesi

, User Journey of an App Developer in Designing an App Rollup

[Slides | Video]

Ethan Buchman

· Felipe Argento

@Informal
Systems / Cycles, Defund the Dealers: the Past, Present, and Future of Liquidity
[Slides Video]
Ken Ng
@Uniswap
Foundation, Yisi Liu
@Mask
, Matt Katz
@Caldera
, Makoto
@ENS
, Ansgar
@EF
, Vitalik
@EF
, T.I.N.A.
@Flashbots
, Panel Protocol Researchers Meets Applications with Users
[Video]
• Vitalik
@EF
, Ken Ng
@Uniswap
Foundation, Ethan Buchman
@Informal
Systems, Dev Ojha
@Osmosis
, T.I.N.A.
@Flashbots
, Fireside Chat How is App-chain Thesis Different Between Ethereum & Cosmos Ecosystem
[Video]
Chapter II. Protocol.wtf
• Vitalik
@EF
, Ethereum as a Platform for Dapps, in 2015 and 2024
[Slides Video]

• Jonah

@Blockchain Capital, Protocol MEV Capture • [Slides | Video] • Emmanuel Awosika @2077Collective , Layer 2s as Extensions of Ethereum [Slides | Video] • Tarun Chitra @Gauntlet , How to Reason about Contagion Risk within the Modular Stack [Slide | Video] Fiskante @Zeeprime , Justin Drake @EF , James Prestwich , Ben Fisch @Espresso , Jacob Arluck @Celestia , Panel | Fat Applications, Protocols, Middleware, or... Operators? [Video] Chapter III. Defying the Endgame Yuki @Sorella Labs, State of MEV 2024 [Slides | Video] Matt Cutler @Blocknative , Gas Matters: New Sources of Base Fee Volatility [Slides | Video] John Adler @Celestia , It's All R3sourc3 Pricing [Slides | Video]

· Evan Forbes

@Celestia

, Based Rollups are Based, Fork Choice Rules Rule
[Slides Video]
Shea Ketsdever
@Flashbots
, MEV in 2025
[Slides Video]
• Dmarz
@Flashbots
, Josh Bowen
@Astria
, Markus
@Propellerheads
, Dan Elitzer
@Nascent
, Hart Lambur
@UMA
@Across
, Panel What application innovation can block building / solving / sequencing uniquely enable?
[Video]
Chapter IV. The Game Changer Today
Ethan Buchman
@Informal
Systems, How to Win Friends and TEE-fluence People
[Slides Video]
Andrew Miller
@Flashbots
& Cycles, The TEE Stack
[Slides Video]
• Dmarz
@Flashbots
, ModulariTEE: Control Your Information Flow
[Slides Video]
Sxysun
@Flashbots
, Unlocking A New Dimension of Application Design with TEE Stack
[Slides Video]

• Michael Gao

@Fabric
Cryptography, Andrew Miller
@Flashbots
, Tarun Chitra
@Gauntlet
, Panel Open TEE: 1st Step towards the Ideal Chips for Crypto
[Video]
Chapter V. The Metagame
Ethan Buchman
@Informal
Systems, Mustafa Al-Bassam
@Celestia
, Andrew Miller
@Flashbots
, Tarun Chitra
@Gauntlet
, Panel The Metagame
[Video]

DarkPool.Salon

Hosted by Flashbots, PropellerHeads, and Uniswap Foundation

• Markus Schmitt

@PropellerHeads

- , Making Onchain Liquidity Great Again
 - Tesa Ho, Christoph Schlegel, Dmarz
- , Dark Pools in Traditional Finance Panel

[video]

Ken Ng @Uniswap

Foundation

, Spec'ing a UniV4 Dark Pool Hook in a TEE