

“What is the major value proposition of crypto?”

“And why, from just first principles, this value proposition induces MEV?”

These are some of the questions discussed in this first installment of Flashbot's new

Whiteboard Series to explore and explain ideas around MEV, whose theme will be structured around answering: “how do we unlock the magic of trustless collaboration?”

format: 30min - 1hr episodes, one invited guest.

In this first episode, we share mental models on formulating crypto as permissionless credible commitment devices using (cooperative) game theory, then dive into the limits of the tradeoff space in mediating games and meta-games played using those devices.

[

](<https://www.youtube.com/watch?v=P-4BK06vhr0>)

Youtube

: [video](#)

Host

: [Xinyuan Sun](#)

Guest

: [Barnabé Monnot](#)

Summary

: A major value proposition of crypto is that users can trustlessly collaborate by making credible commitments of their actions. In this episode, we discuss mental models to think about permissionless credible commitment devices through the lens of game theory, with the (un)surprising observation that MEV arises as a necessity from the use of such devices.

Timestamps for Topics Covered

- 0:00 Introduction to the topic and credible commitments
- 12:40 Cost of coordination
- 22:20 Modeling the prisoner's dilemma with credible commitments
- 32:08 Folk Theorem
- 37:10 The payoff of coalition and collusion
- 44:16 Modeling block space futures
- 55:40 Value flow, MEV nomenclature, and Price of Anarchy
- 59:20 Returning to credibility versus efficiency

Related Material

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- [Post: On Coordination](#)
- [Post: Ethereum as a Credible Commitment Device](#)
- [Post: PEPC, Credible Commitments by Proposer](#)
- [Slides: MEV and Credible Commitment Devices](#)
- [Slides: Decentralization Efficiency Tradeoff](#)
- [Post: Blockspace Derivatives](#)
- [Talk: This is MEV](#)
- [Slides: This is MEV](#)

- [Short Note: Coordination Mechanisms and MEV](#)
- [Paper: Social Welfare, AMM, Opaque Privacy Setting](#)
- [Post: Granularity of receive-order fairness protocols](#)

Keywords

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- [Price of anarchy](#)
- [Social welfare](#)
- Fungible
- [Folk Theorem](#)
- [Commitment Devices](#)
- [Credible commitments](#)
- Leverage/ over-leveraged
- [Collusion](#)
- [3EV](#)
- [Monarch \(in this context\)](#)
- [Block space](#)
- [Block space futures](#)
- [Coordinator attack](#)
- [Externality](#)