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Nota di contenuto	MEV Capture Through Time-Advantaged Arbitrage -- Rational Censorship Attack: Breaking Blockchain with a Blackboard -- Designing for Fair Oracle Extractable Value: A Theoretical Framework and Empirical Findings -- A Factor Model for Digital Assets -- From Rules to Rewards: Reinforcement Learning for Interest Rate Adjustment in DeFi Lending -- Adaptive Proof-of-Stake Governance: A Game-Theoretic Approach to Consensus Mechanisms -- Bittensor Protocol: The Bitcoin in Decentralized Artificial Intelligence? A Critical and Empirical Analysis -- Economic Security of Multiple Shared Security Protocols -- GasGuard: An LLM-based Automated Gas Vulnerability

Detection and Mitigation System -- From Fear to Greed: Analyzing Sentiment Indicators in Bitcoin Price Prediction -- SoK: Comprehensive Analysis of Token Allocations, Distributions, and their Effect on Token Value and User Participation -- Pricing Factors and TFMs for Scalability-Focused ZK-Rollups -- A Guide to Decentralized High-Frequency Trading Infrastructure -- Network Topology and Latent Structures in Crosschain Liquidity Flows -- Chasing price drains liquidity -- The economic and geopolitical implications of a U.S. National Bitcoin Reserve on global crypto markets: Theoretical underpinnings.

Sommario/riassunto

This book presents the best papers from the 6th International Conference on Mathematical Research for Blockchain Economy (MARBLE) 2025, held in Athens, Greece. While most blockchain conferences and forums are dedicated to business applications, product development or Initial Coin Offering (ICO) launches, this conference focused on the mathematics behind blockchain to bridge the gap between practice and theory. Blockchain technology has been considered as the most fundamental and revolutionizing invention since the Internet. Every year, thousands of blockchain projects are launched and circulated in the market, and there is a tremendous wealth of blockchain applications, from finance to healthcare, education, media, logistics, and more. However, due to theoretical and technical barriers, most of these applications are impractical for use in a real-world business context. The papers in this book reveal the challenges and limitations, such as scalability, latency, privacy, and security and showcase solutions and developments to overcome them.