

Department of Mathematics

# Distinguished Visitor Talk

## Dr. Artem Kotelskiy

(Open to Public)

**Title:** The arc of blockchains: coordination, money & beyond

**Abstract:** The blockchain's core innovation is a neutral layer for social coordination. We will start by describing what exactly this means through the first principles: the collusion problem of centralized systems, the idea of neutrality & distributed systems, and the concepts of incentivization & mechanism design. This will lead us to blockchains (networks) and cryptocurrencies (assets) that are securing them. We will first cover Bitcoin and its core value-proposition: "digital gold". We then will proceed to Ethereum and its ground-breaking innovation: smart contracts that enable programmable incentives & coordination, and the resulting Decentralized Finance ecosystem.

**Bio:** The first 10 years of Artem's career were devoted to pure mathematics – he was studying knots and manifolds in places like Princeton, Indiana and Stony Brook Universities. He was interested in the blockchain space as early as 2015 – on the side he did both researching and investing in the space. Two years ago he taught a successful course on blockchains in Stony Brook ([artofkot.xyz/blockchain-course](http://artofkot.xyz/blockchain-course)), and last year Artem decided to dive into the space full-time, as a research lead in a venture fund ([cyber.fund](http://cyber.fund)).

Monday April 22, 2024

Donald E. Bianchi Planetarium

2:15 PM – 3:15 PM

Host: Ali Pakzad