FACULTAD DE CIENCIAS FÍSICAS Y MATEMÁTICAS UNIVERSIDAD DE CHILE

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Seminar AGCO

Speaker: Francisco Marmolejo, University of Oxford and IOHK.

Title: Strategic and Structural Aspects of Bitcoin Mining.

Abstract: Just over a decade ago, Satoshi Nakamoto published a landmark white paper outlining the backbone protocol to Bitcoin, arguably the world's first mainstream digital currency. Through the Nakamoto protocol and blockchain technology, users can reliably agree upon a common transaction history maintained by miners on the public Bitcoin ledger in a decentralised and anonymous fashion. This is possible in part because agents within the protocol are assumed to be strategic rather than adversarial---a fair assumption when creating a ledger for currency. The Nakamoto protocol is thus at its core a decentralised consensus protocol among strategic agents that is built from cryptographic primitives and judicious incentive engineering. In this talk I will give an overview of how game theory is an important tool to understand decentralised consensus protocols such as Bitcoin. Along the way, I will highlight recent work pertaining to strategic mining within "pools" of miners and inherent structural limitations of Bitcoin-like proof-of-work (PoW) consensus protocols.

When: Wednesday October 21, **14:30 hrs (Chilean time).**

Link: https://zoom.us/j/92034905790?pwd=RjFlL29iQzIwQ1hkSnQrdG1uOTVXUT09

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