



THE CHINESE UNIVERSITY OF HONG KONG
Department of Information Engineering
Seminar

A Study on Crypto Stablecoins: Principles and Risks

By
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Date : 6 September 2024 (Friday)

Time : 11:00am – 12:00pm

Venue : Rm 833, Ho Sin Hang Engineering Building, CUHK

Abstract

Stablecoins are a type of cryptocurrency designed to minimize price volatility by pegging their value to a stable asset, such as fiat currency (e.g., USD), commodities (e.g., gold), or other cryptocurrencies. The primary purpose of stablecoins is to provide a stable medium of exchange and store of value, making them suitable for everyday transactions, trading, and financial contracts within the blockchain ecosystem. Thus it's an important component in the decentralized finance (DeFi) ecosystem.

In this talk, I will give an overview of the different types of crypto stablecoins, including collateralized and algorithmic stablecoin. After that, I will show the risks of these stablecoins, mainly from the financial and technical perspective. At last, I will use Luna as an example, to show the reason for its collapse and the lessons learned.

Biography

Yajin (Andy) Zhou is a co-founder of BlockSec and a professor at Zhejiang University. He earned a Ph.D. (2015) in Computer Science from North Carolina State University and then worked as a senior security researcher at Qihoo 360.

Yajin Zhou has published more than 60 papers, with 9800+ citations (Google Scholar). Yajin was recognized as the Most Influential Scholar Award for contributions to the field of Security and Privacy. His current research spans traditional ones (software security, operating systems security and hardware-assisted security) and emerging areas (security of smart contracts, decentralized finance (DeFi) security, and underground economy.)

Yajin Zhou co-founded BlockSec, a full-stack blockchain security service provider. BlockSec reported several zero-day attacks on DeFi applications, blocked multiple hacks to rescue more than 20 million dollars, and secured billions of cryptocurrencies. BlockSec raised around 8 million USDs from investors including matrixpartners (经纬), vitalbridge (绿洲资本), fenbushi capital (分布式资本), etc.

**** ALL ARE WELCOME ****