First Banco Santander Financial Engineering School

Centre de Recerca Matemàtica, Barcelona.

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Day 1: Econometric Studies of Crypto Asset Markets

- An overview of the asset class from initial coin offerings to derivatives
- Centralised (off-chain) and decentralised (on-chain) exchange trading
- Regression analysis of the determinants of successful Fintech start-ups
- Spot market risk analysis of bitcoin, ether and other major coins
- Price discovery in bitcoin and ether futures markets

Day 2: Trading and Hedging Bitcoin Volatility

- Implied vs realised volatility and the variance risk premium
- Trading on bitcoin options and variance swaps
- Live streaming the bitcoin implied volatility index:
  https://www.cryptocompare.com/indices/bvin/
- The effect of margin calls on hedging bitcoin spot price volatility with futures
- Dynamic delta hedging for bitcoin option market makers