## Isogenies Graphs and Isogenies Cycles through Examples and Applications: The Rostovtev-Stolbunov cryptosystem

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**Abstract.** In this talk, we explain the construction of isogenies graphs and isogenies cycles for ordinary elliptic curves. We illustrate concepts with many examples. We end with a brief presentation and a security analysis of the Rostovtev-Stolbunov cryptosystem **Key words:** Elliptic Curves-Isogenies-Graphs-Cycle.

## References:

- 1. Alexander Rostovtsev and Anton Stolbunov, *Public key cryptosystem based on isogenies*, Saint-Petersburg State Polytechnical University, Department of Security and Information Protection in Computer System Russia.
- 2. Joseph H. Silverman, *The Arithmetic of Elliptic Curves* , Graduate Texts in Mathematics 106, second edition, Springer 2009.