# 刘逸

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#### 研究兴趣

密码学与网络安全,特别是安全两方/多方计算 (MPC)、零知识证明 (Zero-Knowledge Proofs),定时密码学 (Timed Cryptography),以及区块链相关应用 (Blockchain-Related Applications)。

## 教育背景

香港大学 2018.9 至今

- 计算机科学在读博士研究生
- 香港大学-南方科技大学联合培养博士项目
- 导师: 姚兆明 Siu-Ming Yiu (香港大学), 王琦 (南方科技大学)

南方科技大学 2014.9 - 2018.7

- 工学学士 (计算机科学与技术)
- GPA: 3.84/4.00 (专业核心课程); 3.70/4.00 (所有课程)
- 毕业论文: An Evaluation System Based on Blockchain and Linkable Ring Signature
  - 南方科技大学计算机科学与工程系**最佳论文奖**

## 已发表论文

1. Towards Practical Homomorphic Time-Lock Puzzles: Applicability and Verifiability.

Yi Liu, Qi Wang, Siu-Ming Yiu.

To appear in The 27th European Symposium on Research in Computer Security (**ESORICS 2022**). https://eprint.iacr.org/2022/585

2. Making Private Function Evaluation Safer, Faster, and Simpler.

Yi Liu, Qi Wang, Siu-Ming Yiu.

The 25th IACR International Conference on Practice and Theory of Public Key Cryptography (**PKC 2022**).

https://eprint.iacr.org/2021/1682

3. Improved Zero-Knowledge Argument of Encrypted Extended Permutation.

Yi Liu, Qi Wang, Siu-Ming Yiu.

The 17th International Conference on Information Security and Cryptology (Inscrypt 2021). https://eprint.iacr.org/2021/1430

4. Blind Polynomial Evaluation and Data Trading.

Yi Liu, Qi Wang, Siu-Ming Yiu.

The 19th International Conference on Applied Cryptography and Network Security (ACNS 2021). https://eprint.iacr.org/2021/413

5. An Improvement of Multi-Exponentiation with Encrypted Bases Argument: Smaller and Faster. Yi Liu, Qi Wang, Siu-Ming Yiu.

The 16th International Conference on Information Security and Cryptology (Inscrypt 2020). https://eprint.iacr.org/2020/567

## 其他论文

1. An E-voting Protocol Based on Blockchain.

Yi Liu and Qi Wang.

Manuscript, 2017.

在线版本: https://eprint.iacr.org/2017/1043

## 学术报告

Making Private Function Evaluation Safer, Faster, and Simpler.
 The 25th IACR International Conference on Practice and Theory of Public Key Cryptography (PKC 2022).

Virtual. Mar. 2021.

- Improved Zero-Knowledge Argument of Encrypted Extended Permutation.

  The 17th International Conference on Information Security and Cryptology (Inscrypt 2021).

  Virtual. Aug. 2021.
- Blind Polynomial Evaluation and Data Trading.
   The 19th International Conference on Applied Cryptography and Network Security (ACNS 2021).
   Virtual. Jun. 2021.
- An Improvement of Multi-Exponentiation with Encrypted Bases Argument: Smaller and Faster. The 16th International Conference on Information Security and Cryptology (Inscrypt 2020). Guangzhou, China. Dec. 2020.

#### 经历

- 助教
  - COMP 2119: 数据结构与算法 (2021 年秋季) 香港大学
     CS403: 密码学与网络安全 (2019 年秋季, 2020 年秋季) 南方科技大学
     COMP7904: 信息安全: 攻击与防御 (2019 年春季) 香港大学
     CS304: 软件工程 (2017 年春季) 南方科技大学
     CS201: 离散数学 (2016 年秋季) 南方科技大学
- 研究助理
  - 南方科技大学编码理论与密码学实验室

2016.9 - 2018.8

- \* 导师: 王琦
- \* 成果一: An E-voting Protocol Based on Blockchain (Manuscript)
- \* 成果二: An Evaluation System Based on Blockchain and Linkable Ring Signature (本科毕业论文)

#### 学术活动

成员 IACR 学生会员

审稿 IEEE BSC@QRS (2021, 2020)

#### 技能

语言 中文 (母语), 英文 (流畅)

编程 C/C++, Python