

# Ke Wu

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## Education

- Carnegie Mellon University, Pittsburgh, PA, PhD in Computer Science *Aug 2020 – present*
- Cornell University, Ithaca, NY, PhD in Computer Science *Aug 2019 – Aug 2020*
- Johns Hopkins University, Baltimore, MD, M.S. in Computer Science *Sep 2016 – Dec 2017*
- Fudan University, Shanghai, China, B.S. in Mathematics *Sep 2012 – Dec 2016*

## Research Interests

Cryptography, Coding Theory, Information Theory, Combinatorics.

## Publications

- [A Practical Coding Scheme for the BSC with Feedback \(ISIT 2021\)](#).  
**Ke Wu** and Aaron B. Wagner (contribution order)
- [Non-interactive Anonymous Router \(EUROCRYPT 2021\)](#).  
Elaine Shi and **Ke Wu** (alphabetical order)
- [Deterministic Document Exchange Protocols, and Almost Optimal Binary Codes for Edit Errors \(FOCS 2018\)](#).  
Kuan Cheng, Zhengzhong Jin, Xin Li and **Ke Wu** (alphabetical order)
- [Synchronization Strings: Efficient and Fast Deterministic Constructions over Small Alphabets \(SODA 2019\)](#).  
Kuan Cheng, Bernhard Haeupler, Xin Li, Amirbehshad Shahrasbi and **Ke Wu** (alphabetical order)
- [Edit Errors with Block Transpositions: Deterministic Document Exchange Protocols and Almost Optimal Binary Codes \(ICALP 2019\)](#).  
Kuan Cheng, Zhengzhong Jin, Xin Li and **Ke Wu** (alphabetical order)

## Manuscripts

- [A Complete Characterization of Game-Theoretically Fair, Multi-Party Coin Toss](#) (submitted to FOCS 2021)  
**Ke Wu**, Gilad Asharov and Elaine Shi (random order)

## Professional Experience

*Remote Research Intern, NTT Research, Inc.*

*May 2021 – Aug 2021*

- Doing research on game theoretical security for multiparty computation supervised by Prof. Ilan Komargodski.

*Research Assistant, Johns Hopkins University, Baltimore, MD, U.S*

*Feb 2017 – Mar 2019*

- Conducted research on coding theory and cryptography in Professor Xin Li's group, with focus on studying the error correcting code and the document exchange protocol for edit errors.

## **Talks**

- *A Complete Characterization of Game-Theoretically Fair, Multi-Party Coin Toss.*  
Bar-Ilan University, Crypto Seminar, June 2021.
- *A Practical Coding Scheme for the BSC with Feedback (ISIT 2021).*  
ISIT 2021 (to appear).
- *Synchronization Strings: Efficient and Fast Deterministic Constructions Over Small Alphabets (SODA 2019).*  
University of Maryland, Theory Seminar, December 2018;  
SODA 2019, January 2019.

## **Skills**

- Programming: Matlab, Python
- Tools: LaTeX, Git
- Techniques: Numerical Analysis, Advanced Algebra, Group Theory