

PAUL S. LOU

INTERESTS

Theoretical and applied cryptography, information theory

EDUCATION

- 2019-Present **Ph.D. Candidate** at UCLA advised by Prof. Amit Sahai.
 Masters in Computer Science, UCLA (June 2021).
- Dec. 2018 University of Pennsylvania *Management & Technology* dual degree program:
 B.S.E. in Mathematics and Computer Science, School of Engineering and
 Applied Sciences.
 Advised by Prof. Nadia Heninger.
 B.S. in Economics, concentration in Statistics, The Wharton School.

PREPRINTS

1. A Note on the Pseudorandomness of Low-Degree Polynomials over the Integers
Aayush Jain, Alexis Korb, Paul Lou, Amit Sahai
<https://ia.cr/2021/1415>

PUBLICATIONS

All authors listed by alphabetical order.

- To appear. 6. Hard Languages in $\text{NP} \cap \text{coNP}$ and NIZK Proofs from Unstructured Hardness
Riddhi Ghosal, Yuval Ishai, Alexis Korb, Eyal Kushilevitz, Paul Lou, Amit Sahai.
STOC 2023.
- To appear. 5. Polynomial-Time Cryptanalysis of the Subspace Flooding Assumption for Post-Quantum $i\mathcal{O}$
Aayush Jain, Rachel Lin, Paul Lou, Amit Sahai.
EUROCRYPT 2023. <https://ia.cr/2022/1637>
4. Efficient NIZKs from LWE via Polynomial Reconstruction and “MPC in the Head”
Riddhi Ghosal, Paul Lou, Amit Sahai.
Asiacrypt 2022.
<https://ia.cr/2022/370>
3. Beyond the Csiszár-Korner Bound: Best-Possible Wiretap Coding via Obfuscation
Yuval Ishai, Alexis Korb, Paul Lou, Amit Sahai.
CRYPTO 2022. Invited submission to *The Journal of Cryptology*.
<https://ia.cr/2022/343>
2. Relinearization Attack on LPN over Large Fields
Paul Lou, Amit Sahai, Varun Sivashankar.
CFAIL 2022. Invited submission to a special edition of *The Computer Journal*.
<https://tinyurl.com/23a274dd>

1. Post-quantum RSA

Daniel J. Bernstein, Nadia Heninger, Paul Lou, Luke Valenta

PQCRYPTO 2017

ia.cr/2017/351

SERVICE

Reviewer for Journal of Cryptology. External reviewer for CRYPTO 2022.

TEACHING

Teaching assistant for

- CS-181: Formal Languages and Automata Theory, Winter 2021, Winter 2022, UCLA.
- CIS-556: Cryptography (Graduate-level), Fall 2018, UPenn.
- CIS-548: Operating Systems (Graduate-level) Spring 2018, UPenn.
- CIS-380: Operating Systems, Fall 2017, Fall 2018 (Head TA), UPenn
- CIS-262: Theory of computation: Automata, Computability, & Complexity, Fall 2016, UPenn.

COMPUTER LANGUAGES

Preferred PYTHON, C++

Comfortable OCAML, C, JAVA

PERSONAL INFORMATION

Languages ENGLISH · Mothertongue

MANDARIN · Bilingual

FRENCH · B1

Nationality US Citizenship

Email pslou@cs.ucla.edu

Misc. Interests Skiing · Climbing · Hot Chocolate

February 14, 2023