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Contact Information

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Education

- 08.2017 - present Friedrich-Alexander University Erlangen-Nuremberg (FAU)
Doctoral Candidate
Supervised by Prof. Dominique Schröder
- 08.2014 - 10.2016 The Chinese University of Hong Kong (CUHK)
MPhil in Information Engineering
“Secure Delegation of Parallel Computation”
Supervised by Prof. Sherman Sze Ming CHOW
- 09.2010 - 07.2014 The Chinese University of Hong Kong (CUHK)
BSc in Mathematics (Second-Upper Class Honour)
BEng in Information Engineering (First Class Honour)
(Double Degree)

Selected Publications

- Nico Döttling, Russell W. F. Lai, and Giulio Malavolta. Incremental proofs of sequential work. In Yuval Ishai and Vincent Rijmen, editors, *EUROCRYPT 2019, Part II*, volume 11477 of *LNCS*, pages 292–323. Springer, Heidelberg, May 2019
- Russell W. F. Lai and Giulio Malavolta. Subvector commitments with application to succinct arguments. In Alexandra Boldyreva and Daniele Micciancio, editors, *CRYPTO 2019, Part I*, volume 11692 of *LNCS*, pages 530–560. Springer, Heidelberg, August 2019
- Xavier Bultel, Pascal Lafourcade, Russell W. F. Lai, Giulio Malavolta, Dominique Schröder, and Sri Aravinda Krishnan Thyagarajan. Efficient invisible and unlinkable sanitizable signatures. In Dongdai Lin and Kazue Sako, editors, *PKC 2019, Part I*, volume 11442 of *LNCS*, pages 159–189. Springer, Heidelberg, April 2019
- Russell W. F. Lai, Raymond K. H. Tai, Harry W. H. Wong, and Sherman S. M. Chow. Multi-key homomorphic signatures unforgeable under insider corruption. In Thomas Peyrin

and Steven Galbraith, editors, *ASIACRYPT 2018, Part II*, volume 11273 of *LNCS*, pages 465–492. Springer, Heidelberg, December 2018

- Russell W. F. Lai, Giulio Malavolta, and Dominique Schröder. Homomorphic secret sharing for low degree polynomials. In Thomas Peyrin and Steven Galbraith, editors, *ASIACRYPT 2018, Part III*, volume 11274 of *LNCS*, pages 279–309. Springer, Heidelberg, December 2018
- Russell W. F. Lai, Christoph Egger, Manuel Reinert, Sherman S. M. Chow, Matteo Maffei, and Dominique Schröder. Simple password-hardened encryption services. In William Enck and Adrienne Porter Felt, editors, *USENIX Security 2018*, pages 1405–1421. USENIX Association, August 2018
- Russell W. F. Lai, Christoph Egger, Dominique Schröder, and Sherman S. M. Chow. Phoenix: Rebirth of a cryptographic password-hardening service. In Engin Kirda and Thomas Ristenpart, editors, *USENIX Security 2017*, pages 899–916. USENIX Association, August 2017
- Russell W. F. Lai and Sherman S. M. Chow. Forward-secure searchable encryption on labeled bipartite graphs. In Dieter Gollmann, Atsuko Miyaji, and Hiroaki Kikuchi, editors, *ACNS 17*, volume 10355 of *LNCS*, pages 478–497. Springer, Heidelberg, July 2017
- Yu-Chi Chen, Sherman S. M. Chow, Kai-Min Chung, Russell W. F. Lai, Wei-Kai Lin, and Hong-Sheng Zhou. Cryptography for parallel RAM from indistinguishability obfuscation. In Madhu Sudan, editor, *ITCS 2016*, pages 179–190. ACM, January 2016

Working Experiences

08.2017 - present Research Assistant, FAU
08.2016 - 07.2017 Research Assistant, CUHK
12.2013 - 05.2014 Research Assistant, CUHK
06.2013 - 08.2013 Research Internship, CUHK