Curriculum Vitae

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Hsin-Po Wang received a bachelor's degree in mathematics from National Taiwan University in 2015 and a Ph.D. degree in mathematics from the University of Illinois Urbana-Champaign in 2021. After spending a year as a postdoctoral researcher in the Department of ECE at UC San Diego, Hsin-Po is currently a postdoctoral researcher in the Department of EECS at UC Berkeley. Hsin-Po has worked on polar codes, distributed storage, distributed computation, and group testing.

I   Education

Ph.D in Mathematics   2016–2021
University of Illinois Urbana-Champaign
Advisor: Iwan Duursma
Dissertation: *Complexity and Second Moment of the Mathematical Theory of Communication*

Bachelor of Science in Mathematics   2011–2015
National Taiwan University (國立臺灣大學)

II   Employments

Postdoctoral Researcher   December 2022–2023
Department of Electrical Engineering and Computer Sciences (EECS)
University of California, Berkeley

Postdoctoral Researcher   October 2021–September 2022
Department of Electrical and Computer Engineering (ECE)
University of California San Diego

III   Research Interests

• Information theory • Coding theory • Polar codes • Distributed system • Application of combinatorics and algebra

IV   Awards and Honors

Irving Reiner Memorial Award in Algebra	2021
Research Assistant Fellowship	Spring 2020
Teacher ranked as excellent by their students	Fall 2019, Spring 2019, Spring 2018
Book–Scroll Award (top 5% GPA) Fall 2015, Spri 2014, Spri 2013, Fall 2012, Spri 2012, Fall 2011	
Prof. Cheng-Tang Hsiao Memorial Scholarship (蕭正堂紀念獎學金)	2014
Prof. Ta-Kai Hu Memorial Scholarship (胡達開先生紀念獎學金)	2013

V   Publications

I. Duursma, R. Gabrys, V. Guruswami, T.-C. Lin, H.-P. Wang. *Accelerating Polarization via Alphabet Extension.* accepted to International Conference on Randomization and Computation (RANDOM). September 2022.

H.-P. Wang, R. Gabrys, A. Vardy. *PCR, Tropical Arithmetic, and Group Testing.* IEEE International Symposium on Information Theory (ISIT). June 2022. https://doi.org/10.1109/ISIT50566.2022.9834718

I. Duursma, H.-P. Wang. *Multilinear Algebra for Minimum Storage Regenerating Codes: A Generalization of Product-Matrix Construction.* Applicable Algebra in Engineering, Communication and Computing. October 2021. https://doi.org/10.1007/s00200-021-00526-3

I. Duursma, X. Li, H.-P. Wang. *Multilinear Algebra for Distributed Storage.* SIAM Journal on Applied Algebra and Geometry (SIAGA). September 2021. https://doi.org/10.1137/20M1346742

H.-P. Wang, I. Duursma. *Log-logarithmic Time Pruned Polar Coding.* IEEE Transactions on Information Theory. March 2021. https://doi.org/10.1109/TIT.2020.3041523

H.-P. Wang, I. Duursma. *Polar Codes' Simplicity, Random Codes' Durability.* IEEE Transactions on Information Theory. March 2021. https://doi.org/10.1109/TIT.2020.3041570