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Ya-Wei Eileen Lin

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Education

Technion, Israel Institute of Technology, Haifa, ISRAEL 06/2020 – Expected 09/2024
Doctor of Philosophy, Electrical and Computer Engineering
Supervised by Prof. Ronen Talmon

Technion, Israel Institute of Technology, Haifa, ISRAEL 10/2017 – 06/2020
Master of Science, Electrical and Computer Engineering ***Summa Cum Laude***
Supervised by Prof. Ronen Talmon

National Cheng Kung University (NCKU), Tainan, TAIWAN 09/2013 – 06/2017
Bachelor of Science, Electrical Engineering *GPA 3.9/4.0*

Research Interests

Geometric learning, **Optimal transport**, **Hyperbolic geometry**, **Diffusion geometry**, **Riemannian geometry**, **Graph neural networks**

Publications

1. **Y.-W. E. Lin**, Y. Kluger, R. Talmon, "Hyperbolic Diffusion Procrustes Analysis for Intrinsic Representation of Hierarchical Data Sets", ICASSP 2024
2. **Y.-W. E. Lin**, R. R. Coifman, G. Mishne, R. Talmon, "Hyperbolic Diffusion Embedding and Distance for Hierarchical Representation Learning", ICML 2023
3. **Y.-W. E. Lin**, Y. Kluger, R. Talmon, "Hyperbolic Procrustes Analysis Using Riemannian Geometry", NeurIPS 2021
4. **Y.-W. E. Lin**, T. Shnitzer, R. Talmon, F. Villarroel-Espindola, S. Desai, K. Schalper, and Y. Kluger, "Graph of graphs analysis for multiplexed data with application to imaging mass cytometry", PLoS computational biology, Vol. 17, No. 3, e1008741, 2021
5. S. Desai, S. Salahuddin, R. Yusuf, K. Ranjan, J. Gu, **Y.-W. E. Lin**, R. Talmon, Y. Kluger, H. Zhao, K. Schalper, B. Emu, "Spatial Analysis Reveals Impaired Immune Cell Function within the Tumor Microenvironment of HIV-associated Non-small Cell Lung Cancer." medRxiv (2023): 2023-10.
6. Villarroel-Espindola1*, S. Desai1*, **Y.-W. E. Lin***, M. F. Sanmamed, R. Talmon,T. Shnitzer, A. Porciuncula1, B. S. Henick, J. Zugazagoitia, J. Patsenker, D. E.Carvajal-Hausdorf, R. R. Montgomery, R. S. Herbst, D. L. Rimm, L. Chen, Y. Kluger, and K. A. Schalper, "Deep spatial and single-cell microenvironment analysis identifies T-cell and tumor differentiation programs associated with sensitivity to PD-1 axis blockers in NSCLC ", submitted

Scholarships & Awards

Schmidt Postdoc Award for Women in Mathematical and Computing Sciences 02/2024

Andrew and Erna Finci Viterbi Graduate Fellowship's Award 10/2023 – 09/2024
Technion

Faculty Excellence Scholarship 03/2023, 10/2021
Technion

VATAT Prize for Students of the Data Sciences Research 10/2021
Technion

Freud Award 05/2021
Technion

Fine Fellowship 10/2020 – 09/2021
Technion

The Lady Davis Fellowship 10/2017 – 09/2018
Technion

Teaching Experience

Geometric Deep Learning 03/2022 – Present
Teaching assistant — Department of Computer Science, Technion

Introduction to Data Processing and Representation 10/2021 – Present
Teaching assistant — Department of Computer Science, Technion

Geometric Learning (Networks, Graphs and Signal Processing) 10/2020 – Present
Teaching assistant — Department of Electrical and Computer Engineering, Technion

Signal and Image Processing Lab (SIPL) 03/2019 – Present
Undergraduate project supervisor — Department of Electrical and Computer Engineering, Technion

Advanced Topics in Deep Learning 10/2021 – 03/2022
Teaching assistant — Department of Computer Science, Technion

Signal, Image and Data Processing 10/2019 – 09/2021
Teaching assistant — Department of Computer Science, Technion

Theoretical Topics in Deep Learning 10/2019 – 03/2020
Teaching assistant — Department of Electrical and Computer Engineering, Technion

Image Processing and Analysis 08/2019, 08/2018
Teaching assistant — Department of Electrical and Computer Engineering, Technion