# LIANGZU PENG

www.liangzu.org

#### **EDUCATION**

ShanghaiTech University, Shanghai, China

Sep. 2017 - Now

M.S. in Computer Science (advisor: Manolis C. Tsakiris)

Zhejiang University, Hangzhou, China

Sep. 2013 - Jun. 2017

B.Eng. in Measurement Control Technology and Instruments

#### **PUBLICATION**

#### arXiv.

- 1. L. Peng, B. Wang, M. C. Tsakiris, "Homomorphic sensing of subspace arrangements", arXiv:2006.05158 [cs.LG], 2020.
- 2. L. Peng, M. C. Tsakiris, "Linear regression without correspondences via concave minimization", arXiv:2003.07706 [cs.IT], 2020.

#### Journal Papers.

1. M. C.Tsakiris, L. Peng, A. Conca, L. Kneip, Y. Shi, and H. Choi, "An algebraic-geometric approach to linear regression without correspondences", IEEE Transactions on Information Theory (to appear), 2020.

### Conference Papers.

- 1. M. C. Tsakiris and L. Peng, "Homomorphic sensing", International Conference on Machine Learning (ICML), 2019.
- 2. L. Peng, X. Song, M. C. Tsakiris, H. Choi, L. Kneip, and Y. Shi, "Algebraically-initialized expectation maximization for header-free communication", International Conference on Acoustics, Speech, and Signal Processing (ICASSP), 2019.

### WORK EXPERIENCE

Intern - New York University, Shanghai

Feb. 2020 - Now

Spring 2018, ShanghaiTech

Discrete Mathematics — grade assginments and lead the recitation sessions

Algorithms — write solutions and grade assginments

#### PROFESSIONAL SERVICE

Reviewed several papers submitted to:

SI 112, Advanced Geometry<sup>1</sup>

International Conference on Machine Learning

**Neural Information Processing Systems** 

IEEE Transactions on Signal Processing (invited)

#### TEACHING

As Teaching Assistant:

CSCI-SHU 2314, Discrete Mathematics

CSCI-SHU 220, Algorithms

Spring 2020, NYU-Shanghai

MATH 2111, Topological Data Analysis

Spring 2020, ShanghaiTech

SI 232, Subspace Learning

Fall 2019, ShanghaiTech

CS 133, Advanced C++ Programming

Spring 2019, ShanghaiTech

SI 192, Applied Algebraic Geometry

Spring 2019, ShanghaiTech

lecture notes available: http://www.liangzu.org/en/ag-notes.html

## KNOWLEDGE

## Computing:

Compiler, Operating System, Visual SLAM, Deep Learning, Algorithms, Computer Vision

## (Applied) Mathematics:

Optimization, Matrix Analysis, Topological Data Analysis, Real Analysis, Point Set Topology, Algebraic Geometry,.

## $\underline{S}$ KILLS

C, C++, Python, Java, Matlab, Shell, PyTorch,  $\LaTeX$ X.