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PUBLICATIONS

(Co-)First Author Papers.

1. Block Acceleration Without Momentum: On Optimal Stepsizes of Block Gradient Descent for Least-Squares
   LP and Wotao Yin
   [ICML 2024]

2. Scalable 3D Registration via Truncated Entry-wise Absolute Residuals
   Tianyu Huang*, ***LP****, René Vidal, and Yun-Hui Liu [*: Equal Contribution]
   [CVPR 2024] [arXiv]

3. HARD: Hyperplane ARrangement Descent
   Tianjiao Ding*, ***LP****, and René Vidal [*: Equal Contribution]
   [CPAL 2024, Oral Presentation]

4. Block Coordinate Descent on Smooth Manifolds: Convergence Theory and Twenty-One Examples
   LP and René Vidal
   [arXiv]

5. The Ideal Continual Learner: An Agent That Never Forgets
   LP, Paris V. Giampouras, and René Vidal
   [ICML 2023] [OpenReview] [CIVision Workshop 2023] [arXiv] [poster]

6. On the Convergence of IRLS and Its Variants in Outlier-Robust Estimation
   Highlight, 235/9155≈2.5% Acceptance Rate
   LP, Christian Kümmerle, and René Vidal
   [CVPR 2023] [pdf] [talk video] [slides] [poster]

7. Global Linear and Local Superlinear Convergence of IRLS for Non-Smooth Robust Regression
   LP, Christian Kümmerle, and René Vidal
   [NeurIPS 2022] [OpenReview] [arXiv] [code] [slides] [poster]

8. Semidefinite Relaxations of Truncated Least-Squares in Robust Rotation Search: Tight or Not
   Oral Presentation, 158/5803≈2.7% Acceptance Rate
   LP, Mahyar Fazlyab, and René Vidal
   [ECCV 2022] [arXiv] [slides] [talk video] [poster]

9. ARCS: Accurate Rotation and Correspondence Search
   Oral Presentation, 342/8161≈4.2% Acceptance Rate
   LP, Manolis C. Tsakiris, and René Vidal
   [CVPR 2022] [arXiv] [code] [slides] [talk video] [poster]

10. Homomorphic Sensing: Sparsity and Noise
    LP, Boshi Wang, and Manolis C. Tsakiris
    [ICML 2021] [pdf] [talk video]

11. Algebraically-Initialized Expectation Maximization for Header-Free Communication
    LP, Xuming Song, Manolis C. Tsakiris, Hayoung Choi, Laurent Kneip, and Yuanming Shi

[ICASSP 2019] [pdf]

12. Homomorphic Sensing of Subspace Arrangements
    Applied and Computational Harmonic Analysis, 2021
    LP and Manolis C. Tsakiris
    [arXiv]

13. Linear Regression Without Correspondences via Concave Minimization
    IEEE Signal Processing Letters, 2020
    LP and Manolis C. Tsakiris
    [arXiv] [code]

Other Papers.

1. Efficient and Robust Point Cloud Registration via Heuristics-based Parameter Search
   Tianyu Huang, Haoang Li, ***LP***, Yinlong Liu, and Yun-Hui Liu
   IEEE Transactions on Pattern Analysis and Machine Intelligence, 2024
   [arXiv]

2. Unlabeled Principal Component Analysis and Matrix Completion
   Yunzhen Yao, ***LP***, and Manolis C. Tsakiris
   Journal of Machine Learning Research, 2024
   [JMLR Site] [arXiv]

3. Accelerating Globally Optimal Consensus Maximization in Geometric Vision
   Xinyue Zhang, ***LP***, Wanting Xu, and Laurent Kneip
   IEEE Transactions on Pattern Analysis and Machine Intelligence, 2024
   [arXiv]

4. Unlabeled Principal Component Analysis
   Yunzhen Yao, ***LP***, and Manolis C. Tsakiris
   [NeurIPS 2021] [OpenReview] [arXiv] [code]

5. Unsigned Matrix Completion
   Yunzhen Yao, ***LP***, and Manolis C. Tsakiris
   [ISIT 2021] [pdf]

6. An Algebraic-Geometric Approach to Linear Regression Without Correspondences
   IEEE Transactions on Information Theory, 2020
   Manolis C. Tsakiris, ***LP***, Aldo Conca, Laurent Kneip, Yuanming Shi, and Hayoung Choi
   [arXiv] [code]

7. Homomorphic Sensing
   Manolis C. Tsakiris and ***LP***
   [ICML 2019] [arXiv] [code]