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PUBLICATIONS

(Co-)First Author Papers.

1. Block Acceleration Without Momentum: On Optimal Stepsizes of Block Gradient Descent for Least-Squares
[Spotlight Presentation](#)
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 ARangement 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] [CLVision 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]