publications.md 2025-09-23

You can also find the articles on my Google Scholar profile. See also T2R2.

## **Preprint**

1. Nonconvex Regularization for Feature Selection in Reinforcement Learning

Kyohei Suzuki and Konstantinos Slavakis

arXiv:2509.15652

### **Journal Articles**

 Linearly-Involved Moreau-Enhanced-Over-Subspace Model: Debiased Sparse Modeling and Stable Outlier-Robust Regression

Masahiro Yukawa, Hiroyuki Kaneko, Kyohei Suzuki, and Isao Yamada

IEEE Trans. Signal Processing, vol. 71, pp. 1232--1247, 2023

2. Sparse Stable Outlier-Robust Signal Recovery Under Gaussian Noise

Kyohei Suzuki and Masahiro Yukawa

IEEE Trans. Signal Processing, vol. 71, pp. 372--387, 2023

3. Robust Recovery of Jointly-Sparse Signals Using Minimax Concave Loss Function

Kyohei Suzuki and Masahiro Yukawa

IEEE Trans. Signal Processing, vol. 69, pp. 669--681, 2021 (Publication: December 2020)

# Peer-Reviewed Conference Proceedings

 A discrete measure for debiased feature grouping: A limit of Moreau-enhanced OSCAR regularizer and its proximity operator

Kyohei Suzuki and Masahiro Yukawa

in Proc. European Signal Processing Conference (EUSIPCO), 2025, to appear.

2. External Division of Two Proximity Operators: An Application to Signal Recovery with Structured Sparsity

Kyohei Suzuki and Masahiro Yukawa

in Proc. IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP), Seoul, Korea, pp. 9471-9475, April 2024

3. Stable Robust Regression under Sparse Outlier and Gaussian Noise

Masahiro Yukawa, Kyohei Suzuki, Isao Yamada

in Proc. European Signal Processing Conference (EUSIPCO), pp. 2236--2240, August--September 2022

4. Sparse Stable Outlier-Robust Regression with Minimax Concave Function

Kyohei Suzuki and Masahiro Yukawa

in Proc. IEEE International Workshop on Machine Learning for Signal Processing (MLSP), 6 pages, August 2022

5. On Grouping Effect of Sparse Stable Outlier-Robust Regression

Kyohei Suzuki and Masahiro Yukawa

in Proc. IEEE International Workshop on Machine Learning for Signal Processing (MLSP), 6 pages, August 2022

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6. Robust Jointly-Sparse Signal Recovery Based on Minimax Concave Loss Function

Kyohei Suzuki and Masahiro Yukawa

in Proc. European Signal Processing Conference (EUSIPCO), pp. 2070--2074, January 2021

#### Non-Peer-Reviewed Articles

Bias Reduction for Feature Grouping Based on a Limit of Moreau-Enhanced OSCAR Regularizer
Kyohei Suzuki and Masahiro Yukawa

in Proc. IEICE Signal Processing Symposium, 6 pages, Sapporo, Japan, Dec. 2024

2. Sparse Signal Recovery Based on Continuous Relaxation of Reversely Ordered Weighted \ell\_1 Shrinkage Operator

Taiki Okuda, Kyohei Suzuki and Masahiro Yukawa

in Proc. IEICE Signal Processing Symposium, 6 pages, Sapporo, Japan, Dec. 2024

 Debiased Estimation of Signals with Structured Sparsity Based on External Division of Two Proximity Operators

Kyohei Suzuki and Masahiro Yukawa

in Proc. IEICE Signal Processing Symposium, 6 pages, Kyoto, Japan, Nov. 2023

4. Multiscale Manifold Clustering and Embedding with Multiple Kernels

Kyohei Suzuki and Masahiro Yukawa

in Proc. Technical Report of IEICE, vol. 122, no. 388, SIP2022-167, pp. 276--281, Okinawa, Japan, Mar. 2023

5. Sparse Stable Outlier-Robust Regression Using Minimax Concave Function

Kyohei Suzuki and Masahiro Yukawa

in Proc. IEICE Signal Processing Symposium, pp. 96--101, Zoom (fully virtual), Nov. 2021

6. A Robust Approach to Jointly-Sparse Signal Recovery Based on Minimax Concave Loss Function **Kyohei Suzuki** and Masahiro Yukawa

in Proc. Technical Report of IEICE, vol. 119, no. 440, SIP2019-124, pp. 123--128, Okinawa, Japan (Conference cancelled), Mar. 2020

## **Doctoral Dissertation**

A study of robust debiasing methods for sparse modeling: Moreau enhancement and beyond

Kyohei Suzuki

Keio University, Sept. 2024