

IEEE JOURNAL OF SELECTED TOPICS IN SIGNAL PROCESSING



<https://signalprocessingsociety.org/>

APRIL 2021

VOLUME 15

NUMBER 3

IJSTGY

(ISSN 1932-4553)

ISSUE ON TENSOR DECOMPOSITION FOR SIGNAL PROCESSING AND MACHINE LEARNING

EDITORIAL

Introduction to the Special Issue on Tensor Decomposition for Signal Processing and Machine Learning	433
..... <i>H. Chen, S. A. Vorobyov, H. C. So, F. Ahmad, and F. Porikli</i>	

SPECIAL ISSUE PAPERS

Tensor Decompositions in Wireless Communications and MIMO Radar	438
..... <i>H. Chen, F. Ahmad, S. Vorobyov, and F. Porikli</i>	
Adaptive Rank Selection for Tensor Ring Decomposition	454
..... <i>F. Sedighin, A. Cichocki, and A.-H. Phan</i>	
Block-Term Tensor Decomposition: Model Selection and Computation	464
..... <i>A. A. Rontogiannis, E. Kofidis, and P. V. Giampouras</i>	
Tensor Decomposition Learning for Compression of Multidimensional Signals	476
..... <i>A. Aidini, G. Tsagkatakis, and P. Tsakalides</i>	
Inexact Generalized Gauss–Newton for Scaling the Canonical Polyadic Decomposition With Non-Least-Squares Cost Functions	491
..... <i>M. Vandecappelle, N. Vervliet, and L. D. Lathauwer</i>	
A Flexible Optimization Framework for Regularized Matrix-Tensor Factorizations With Linear Couplings	506
..... <i>C. Schenker, J. E. Cohen, and E. Acar</i>	
Tensor Recovery via $*_L$ -Spectral k -Support Norm	522
..... <i>A. Wang, G. Zhou, Z. Jin, and Q. Zhao</i>	
Prema: Principled Tensor Data Recovery From Multiple Aggregated Views	535
..... <i>F. M. Almutairi, C. I. Kanatsoulis, and N. D. Sidiropoulos</i>	
Krylov-Levenberg-Marquardt Algorithm for Structured Tucker Tensor Decompositions	550
..... <i>P. Tichavský, A.-H. Phan, and A. Cichocki</i>	
Bayesian Allocation Model: Marginal Likelihood-Based Model Selection for Count Tensors	560
..... <i>S. Yildirim, M. B. Kurutmaz, M. Barsbey, U. Şimşekli, and A. T. Cemgil</i>	
Fast Search of the Optimal Contraction Sequence in Tensor Networks	574
..... <i>L. Liang, J. Xu, L. Deng, M. Yan, X. Hu, Z. Zhang, G. Li, and Y. Xie</i>	
Dynamic L1-Norm Tucker Tensor Decomposition	587
..... <i>D. G. Chachlakis, M. Dhanaraj, A. Prater-Bennette, and P. P. Markopoulos</i>	
Deep Convolutional Neural Network Compression via Coupled Tensor Decomposition	603
..... <i>W. Sun, S. Chen, L. Huang, H. C. So, and M. Xie</i>	
Tensor-Based Reinforcement Learning for Network Routing	617
..... <i>K.-C. Tsai, Z. Zhuang, R. Lent, J. Wang, Q. Qi, L.-C. Wang, and Z. Han</i>	
Tensor Dropout for Robust Learning	630
..... <i>A. Kolbeinsson, J. Kossaifi, Y. Panagakis, A. Bulat, A. Anandkumar, I. Tzoulaki, and P. M. Matthews</i>	

(Contents Continued on Page 432)



Hyperspectral Super-Resolution via Interpretable Block-Term Tensor Modeling	641
..... <i>M. Ding, X. Fu, T.-Z. Huang, J. Wang, and X.-L. Zhao</i>	
Separable Joint Blind Deconvolution and Demixing	657
..... <i>D. Weitzner and R. Giryes</i>	
Combining Tensor Slice and Singular Value for Blind Light Field Image Quality Assessment	672
..... <i>Z. Pan, M. Yu, G. Jiang, H. Xu, and Y.-S. Ho</i>	
Qualitative HD Image and Video Recovery via High-Order Tensor Augmentation and Completion	688
..... <i>P. M. Hoang, H. D. Tuan, T. T. Son, and H. V. Poor</i>	
Coupled Tensor Decomposition for Hyperspectral and Multispectral Image Fusion With Inter-Image Variability	702
..... <i>R. A. Borsoi, C. Prévost, K. Usevich, D. Brie, J. C. M. Bermudez, and C. Richard</i>	
Tensor Low-Rank Constraint and l_0 Total Variation for Hyperspectral Image Mixed Noise Removal	718
..... <i>M. Wang, Q. Wang, and J. Chanussot</i>	
Lightweight Tensor Attention-Driven ConvLSTM Neural Network for Hyperspectral Image Classification	734
..... <i>W.-S. Hu, H.-C. Li, Y.-J. Deng, X. Sun, Q. Du, and A. Plaza</i>	
Application of Tensor Decomposition to Gene Expression of Infection of Mouse Hepatitis Virus Can Identify Critical Human Genes and Effective Drugs for SARS-CoV-2 Infection	746
..... <i>Y.-H. Taguchi and T. Turki</i>	
Designing Tensor-Train Deep Neural Networks For Time-Varying MIMO Channel Estimation	759
..... <i>J. Zhang, X. Ma, J. Qi, and S. Jin</i>	
Fast Position-Aided MIMO Beam Training via Noisy Tensor Completion	774
..... <i>T.-H. Chou, N. Michelusi, D. J. Love, and J. V. Krogmeier</i>	
Channel Estimation for Intelligent Reflecting Surface Assisted MIMO Systems: A Tensor Modeling Approach	789
..... <i>G. T. de Araújo, A. L. F. de Almeida, and R. Boyer</i>	
Tensor-Based Receiver for Joint Channel, Data, and Phase-Noise Estimation in MIMO-OFDM Systems	803
..... <i>B. Sokal, P. R. B. Gomes, A. L. F. de Almeida, and M. Haardt</i>	
Gridless Channel Estimation for Hybrid MmWave MIMO Systems via Tensor-ESPRIT Algorithms in DFT Beamspace	816
..... <i>J. Zhang, D. Rakhimov, and M. Haardt</i>	
Towards Overfitting Avoidance: Tuning-Free Tensor-Aided Multi-User Channel Estimation for 3D Massive MIMO Communications	832
..... <i>L. Cheng and Q. Shi</i>	
Sparse Bayesian Learning Based Tensor Dictionary Learning and Signal Recovery With Application to MIMO Channel Estimation	847
..... <i>W.-C. Chang and Y. T. Su</i>	
