

Volkan Cevher

List of Publications by Year in descending order

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Version: 2024-02-01

69
papers

3,709
citations

331259

21
h-index

276539

41
g-index

70
all docs

70
docs citations

70
times ranked

3460
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|---|------|-----------|
| 1 | On the Convergence of Stochastic Primal-Dual Hybrid Gradient. SIAM Journal on Optimization, 2022, 32, 1288-1318. | 1.2 | 3 |
| 2 | Scalable Semidefinite Programming. SIAM Journal on Mathematics of Data Science, 2021, 3, 171-200. | 1.0 | 43 |
| 3 | Kernel conjugate gradient methods with random projections. Applied and Computational Harmonic Analysis, 2021, 55, 223-269. | 1.1 | 0 |
| 4 | Optimal rates for spectral algorithms with least-squares regression over Hilbert spaces. Applied and Computational Harmonic Analysis, 2020, 48, 868-890. | 1.1 | 21 |
| 5 | An adaptive primal-dual framework for nonsmooth convex minimization. Mathematical Programming Computation, 2020, 12, 451-491. | 3.2 | 8 |
| 6 | An AC-Coupled Wideband Neural Recording Front-End With Sub-1 mm ² Area/conv-step Efficiency and 0.97 NEF. IEEE Solid-State Circuits Letters, 2020, 3, 258-261. | 1.3 | 10 |
| 7 | Machine Learning From Distributed, Streaming Data [From the Guest Editors]. IEEE Signal Processing Magazine, 2020, 37, 11-13. | 4.6 | 12 |
| 8 | Streaming Low-Rank Matrix Approximation with an Application to Scientific Simulation. SIAM Journal of Scientific Computing, 2019, 41, A2430-A2463. | 1.3 | 43 |
| 9 | Ultrasensitive hyperspectral imaging and biodetection enabled by dielectric metasurfaces. Nature Photonics, 2019, 13, 390-396. | 15.6 | 546 |
| 10 | Chemical machine learning with kernels: The impact of loss functions. International Journal of Quantum Chemistry, 2019, 119, e25872. | 1.0 | 1 |
| 11 | Rethinking Sampling in Parallel MRI: A Data-Driven Approach. , 2019, , . | | 9 |
| 12 | Convergence of the Exponentiated Gradient Method with Armijo Line Search. Journal of Optimization Theory and Applications, 2019, 181, 588-607. | 0.8 | 5 |
| 13 | A Smooth Primal-Dual Optimization Framework for Nonsmooth Composite Convex Minimization. SIAM Journal on Optimization, 2018, 28, 96-134. | 1.2 | 30 |
| 14 | Learning-Based Compressive MRI. IEEE Transactions on Medical Imaging, 2018, 37, 1394-1406. | 5.4 | 112 |
| 15 | An area and power efficient on-the-fly LBCS transformation for implantable neuronal signal acquisition systems. , 2018, , . | | 0 |
| 16 | Smoothing Alternating Direction Methods for Fully Nonsmooth Constrained Convex Optimization. Lecture Notes in Mathematics, 2018, , 57-95. | 0.1 | 0 |
| 17 | A Single-Phase, Proximal Path-Following Framework. Mathematics of Operations Research, 2018, 43, 1326-1347. | 0.8 | 3 |
| 18 | A Non-Euclidean Gradient Descent Framework for Non-Convex Matrix Factorization. IEEE Transactions on Signal Processing, 2018, 66, 5917-5926. | 3.2 | 7 |

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 19 | Real-Time DCT Learning-based Reconstruction of Neural Signals. , 2018, , . | | 4 |
| 20 | Adaptive Learning-Based Compressive Sampling for Low-power Wireless Implants. IEEE Transactions on Circuits and Systems I: Regular Papers, 2018, 65, 3929-3941. | 3.5 | 12 |
| 21 | Near-Optimal Noisy Group Testing via Separate Decoding of Items. IEEE Journal on Selected Topics in Signal Processing, 2018, 12, 902-915. | 7.3 | 13 |
| 22 | Practical Sketching Algorithms for Low-Rank Matrix Approximation. SIAM Journal on Matrix Analysis and Applications, 2017, 38, 1454-1485. | 0.7 | 95 |
| 23 | Limits on Support Recovery With Probabilistic Models: An Information-Theoretic Framework. IEEE Transactions on Information Theory, 2017, 63, 593-620. | 1.5 | 53 |
| 24 | An adaptive sublinear-time block sparse fourier transform. , 2017, , . | | 8 |
| 25 | DCT Learning-Based Hardware Design for Neural Signal Acquisition Systems. , 2017, , . | | 4 |
| 26 | Phase Transitions in Group Testing. , 2016, , . | | 51 |
| 27 | Frank-Wolfe works for non-Lipschitz continuous gradient objectives: Scalable poisson phase retrieval. , 2016, , . | | 8 |
| 28 | Fixed Points of Generalized Approximate Message Passing With Arbitrary Matrices. IEEE Transactions on Information Theory, 2016, 62, 7464-7474. | 1.5 | 36 |
| 29 | Learning-Based Compressive Subsampling. IEEE Journal on Selected Topics in Signal Processing, 2016, 10, 809-822. | 7.3 | 82 |
| 30 | Group-Sparse Model Selection: Hardness and Relaxations. IEEE Transactions on Information Theory, 2016, 62, 6508-6534. | 1.5 | 8 |
| 31 | Converse bounds for noisy group testing with arbitrary measurement matrices. , 2016, , . | | 17 |
| 32 | Learning-Based Near-Optimal Area-Power Trade-offs in Hardware Design for Neural Signal Acquisition. , 2016, , . | | 6 |
| 33 | Computational methods for underdetermined convolutive speech localization and separation via model-based sparse component analysis. Speech Communication, 2016, 76, 201-217. | 1.6 | 13 |
| 34 | Stochastic Spectral Descent for Discrete Graphical Models. IEEE Journal on Selected Topics in Signal Processing, 2016, 10, 296-311. | 7.3 | 9 |
| 35 | Binary Sparse Coding of Convolutive Mixtures for Sound Localization and Separation via Spatialization. IEEE Transactions on Signal Processing, 2016, 64, 567-579. | 3.2 | 15 |
| 36 | Active learning of self-concordant like multi-index functions. , 2015, , . | | 1 |

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|----|---|-----|-----------|
| 37 | What's the Frequency, Kenneth?: Sublinear Fourier Sampling Off the Grid. <i>Algorithmica</i> , 2015, 73, 261-288. | 1.0 | 3 |
| 38 | Structured Sparsity: Discrete and Convex Approaches. <i>Applied and Numerical Harmonic Analysis</i> , 2015, , 341-387. | 0.1 | 11 |
| 39 | Metric learning with rank and sparsity constraints. , 2014, , . | | 6 |
| 40 | Matrix Recipes for Hard Thresholding Methods. <i>Journal of Mathematical Imaging and Vision</i> , 2014, 48, 235-265. | 0.8 | 51 |
| 41 | Convexity in Source Separation : Models, geometry, and algorithms. <i>IEEE Signal Processing Magazine</i> , 2014, 31, 87-95. | 4.6 | 38 |
| 42 | An Inexact Proximal Path-Following Algorithm for Constrained Convex Minimization. <i>SIAM Journal on Optimization</i> , 2014, 24, 1718-1745. | 1.2 | 14 |
| 43 | Structured Sparsity Models for Reverberant Speech Separation. <i>IEEE/ACM Transactions on Audio Speech and Language Processing</i> , 2014, 22, 620-633. | 4.0 | 37 |
| 44 | Bilinear Generalized Approximate Message Passingâ€”Part I: Derivation. <i>IEEE Transactions on Signal Processing</i> , 2014, 62, 5839-5853. | 3.2 | 159 |
| 45 | Convex Optimization for Big Data: Scalable, randomized, and parallel algorithms for big data analytics. <i>IEEE Signal Processing Magazine</i> , 2014, 31, 32-43. | 4.6 | 221 |
| 46 | Bilinear Generalized Approximate Message Passingâ€”Part II: Applications. <i>IEEE Transactions on Signal Processing</i> , 2014, 62, 5854-5867. | 3.2 | 57 |
| 47 | Learning non-parametric basis independent models from point queries via low-rank methods. <i>Applied and Computational Harmonic Analysis</i> , 2014, 37, 389-412. | 1.1 | 31 |
| 48 | Fixed points of generalized approximate message passing with arbitrary matrices. , 2013, , . | | 29 |
| 49 | Tractability of interpretability via selection of group-sparse models. , 2013, , . | | 3 |
| 50 | To convexify or not? Regression with clustering penalties on graphs. , 2013, , . | | 1 |
| 51 | Tractability of interpretability via selection of group-sparse models. , 2013, , . | | 0 |
| 52 | Computational methods for structured sparse component analysis of convolutive speech mixtures. , 2012, , . | | 7 |
| 53 | Hard thresholding with norm constraints. , 2012, , . | | 3 |
| 54 | Combinatorial selection and least absolute shrinkage via the Clash algorithm. , 2012, , . | | 13 |

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|----|---|------|-----------|
| 55 | MATRIX ALPS: Accelerated low rank and sparse matrix reconstruction. , 2012, , . | | 11 |
| 56 | Compressible Distributions for High-Dimensional Statistics. IEEE Transactions on Information Theory, 2012, 58, 5016-5034. | 1.5 | 68 |
| 57 | Recipes on hard thresholding methods. , 2011, , . | | 31 |
| 58 | Compressive sensing under matrix uncertainties: An Approximate Message Passing approach. , 2011, , . | | 27 |
| 59 | Greedy Dictionary Selection for Sparse Representation. IEEE Journal on Selected Topics in Signal Processing, 2011, 5, 979-988. | 7.3 | 37 |
| 60 | Model-based compressive sensing for multi-party distant speech recognition. , 2011, , . | | 17 |
| 61 | Model-Based Compressive Sensing. IEEE Transactions on Information Theory, 2010, 56, 1982-2001. | 1.5 | 1,244 |
| 62 | Low-Dimensional Models for Dimensionality Reduction and Signal Recovery: A Geometric Perspective. Proceedings of the IEEE, 2010, 98, 959-971. | 16.4 | 123 |
| 63 | Model-based compressive sensing for signal ensembles. , 2009, , . | | 26 |
| 64 | Vehicle Speed Estimation Using Acoustic Wave Patterns. IEEE Transactions on Signal Processing, 2009, 57, 30-47. | 3.2 | 103 |
| 65 | Approximate distributions for compressible signals. , 2009, , . | | 2 |
| 66 | Compressive sensing for sensor calibration. , 2008, , . | | 7 |
| 67 | Compressed sensing for multi-view tracking and 3-D voxel reconstruction. , 2008, , . | | 30 |
| 68 | Optimal Maneuvering of Seismic Sensors for Localization of Subsurface Targets. IEEE Transactions on Geoscience and Remote Sensing, 2007, 45, 1247-1257. | 2.7 | 6 |
| 69 | Convergence Analysis for Sequential Monte Carlo Receivers in Communications Applications. , 2006, , . | | 0 |