

Gesualdo Scutari

List of Publications by Year in descending order

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Version: 2024-02-01

61
papers

3,860
citations

186265

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h-index

223800

46
g-index

61
all docs

61
docs citations

61
times ranked

2167
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|---|------|-----------|
| 1 | NEXT: In-Network Nonconvex Optimization. IEEE Transactions on Signal and Information Processing Over Networks, 2016, 2, 120-136. | 2.8 | 273 |
| 2 | Convex Optimization, Game Theory, and Variational Inequality Theory. IEEE Signal Processing Magazine, 2010, 27, 35-49. | 5.6 | 256 |
| 3 | Optimal Linear Precoding Strategies for Wideband Noncooperative Systems Based on Game Theory—Part I: Nash Equilibria. IEEE Transactions on Signal Processing, 2008, 56, 1230-1249. | 5.3 | 253 |
| 4 | Decomposition by Partial Linearization: Parallel Optimization of Multi-Agent Systems. IEEE Transactions on Signal Processing, 2014, 62, 641-656. | 5.3 | 223 |
| 5 | Competitive Design of Multiuser MIMO Systems Based on Game Theory: A Unified View. IEEE Journal on Selected Areas in Communications, 2008, 26, 1089-1103. | 14.0 | 212 |
| 6 | Design of Cognitive Radio Systems Under Temperature-Interference Constraints: A Variational Inequality Approach. IEEE Transactions on Signal Processing, 2010, 58, 3251-3271. | 5.3 | 194 |
| 7 | Parallel and Distributed Methods for Constrained Nonconvex Optimization—Part I: Theory. IEEE Transactions on Signal Processing, 2017, 65, 1929-1944. | 5.3 | 187 |
| 8 | Cognitive MIMO radio. IEEE Signal Processing Magazine, 2008, 25, 46-59. | 5.6 | 176 |
| 9 | Asynchronous Iterative Water-Filling for Gaussian Frequency-Selective Interference Channels. IEEE Transactions on Information Theory, 2008, 54, 2868-2878. | 2.4 | 171 |
| 10 | Optimal Linear Precoding Strategies for Wideband Non-Cooperative Systems Based on Game Theory—Part II: Algorithms. IEEE Transactions on Signal Processing, 2008, 56, 1250-1267. | 5.3 | 159 |
| 11 | Distributed Power Allocation With Rate Constraints in Gaussian Parallel Interference Channels. IEEE Transactions on Information Theory, 2008, 54, 3471-3489. | 2.4 | 158 |
| 12 | Noncooperative and Cooperative Optimization of Distributed Energy Generation and Storage in the Demand-Side of the Smart Grid. IEEE Transactions on Signal Processing, 2013, 61, 2454-2472. | 5.3 | 142 |
| 13 | Real and Complex Monotone Communication Games. IEEE Transactions on Information Theory, 2014, 60, 4197-4231. | 2.4 | 141 |
| 14 | Parallel Selective Algorithms for Nonconvex Big Data Optimization. IEEE Transactions on Signal Processing, 2015, 63, 1874-1889. | 5.3 | 132 |
| 15 | Decentralized Maximum-Likelihood Estimation for Sensor Networks Composed of Nonlinearly Coupled Dynamical Systems. IEEE Transactions on Signal Processing, 2007, 55, 3456-3470. | 5.3 | 118 |
| 16 | Distributed Decision Through Self-Synchronizing Sensor Networks in the Presence of Propagation Delays and Asymmetric Channels. IEEE Transactions on Signal Processing, 2008, 56, 1667-1684. | 5.3 | 83 |
| 17 | Distributed nonconvex constrained optimization over time-varying digraphs. Mathematical Programming, 2019, 176, 497-544. | 2.4 | 81 |
| 18 | A Parallel Decomposition Method for Nonconvex Stochastic Multi-Agent Optimization Problems. IEEE Transactions on Signal Processing, 2016, 64, 2949-2964. | 5.3 | 67 |

| # | ARTICLE | IF | CITATIONS |
|----|--|------|-----------|
| 19 | Parallel and Distributed Methods for Constrained Nonconvex Optimization-Part II: Applications in Communications and Machine Learning. IEEE Transactions on Signal Processing, 2017, 65, 1945-1960. | 5.3 | 57 |
| 20 | Flexible design of cognitive radio wireless systems. IEEE Signal Processing Magazine, 2009, 26, 107-123. | 5.6 | 56 |
| 21 | Hybrid Random/Deterministic Parallel Algorithms for Convex and Nonconvex Big Data Optimization. IEEE Transactions on Signal Processing, 2015, 63, 3914-3929. | 5.3 | 55 |
| 22 | Noncooperative Day-Ahead Bidding Strategies for Demand-Side Expected Cost Minimization With Real-Time Adjustments: A GNEP Approach. IEEE Transactions on Signal Processing, 2014, 62, 2397-2412. | 5.3 | 52 |
| 23 | Distributed nonconvex multiagent optimization over time-varying networks. , 2016, , . | | 48 |
| 24 | Nonconvex Games with Side Constraints. SIAM Journal on Optimization, 2011, 21, 1491-1522. | 2.0 | 46 |
| 25 | Robust MIMO Cognitive Radio Systems Under Interference Temperature Constraints. IEEE Journal on Selected Areas in Communications, 2013, 31, 2465-2482. | 14.0 | 41 |
| 26 | Achieving Linear Convergence in Distributed Asynchronous Multiagent Optimization. IEEE Transactions on Automatic Control, 2020, 65, 5264-5279. | 5.7 | 38 |
| 27 | VI-constrained hemivariational inequalities: distributed algorithms and power control in ad-hoc networks. Mathematical Programming, 2014, 145, 59-96. | 2.4 | 33 |
| 28 | Joint Sensing and Power Allocation in Nonconvex Cognitive Radio Games: Quasi-Nash Equilibria. IEEE Transactions on Signal Processing, 2013, 61, 2366-2382. | 5.3 | 32 |
| 29 | Parallel and Distributed Successive Convex Approximation Methods for Big-Data Optimization. Lecture Notes in Mathematics, 2018, , 141-308. | 0.2 | 31 |
| 30 | Distributed nonconvex optimization over networks. , 2015, , . | | 30 |
| 31 | Distributed Algorithms for Composite Optimization: Unified Framework and Convergence Analysis. IEEE Transactions on Signal Processing, 2021, 69, 3555-3570. | 5.3 | 27 |
| 32 | Distributed Consensus Over Wireless Sensor Networks Affected by Multipath Fading. IEEE Transactions on Signal Processing, 2008, 56, 4100-4106. | 5.3 | 23 |
| 33 | Second-Order Guarantees of Distributed Gradient Algorithms. SIAM Journal on Optimization, 2020, 30, 3029-3068. | 2.0 | 23 |
| 34 | Multi-Portfolio Optimization: A Potential Game Approach. IEEE Transactions on Signal Processing, 2013, 61, 5590-5602. | 5.3 | 21 |
| 35 | Feasible methods for nonconvex nonsmooth problems with applications in green communications. Mathematical Programming, 2017, 164, 55-90. | 2.4 | 20 |
| 36 | Distributed Optimization Based on Gradient Tracking Revisited: Enhancing Convergence Rate via Surrogation. SIAM Journal on Optimization, 2022, 32, 354-385. | 2.0 | 20 |

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 37 | Bi-Linear Modeling of Data Manifolds for Dynamic-MRI Recovery. IEEE Transactions on Medical Imaging, 2020, 39, 688-702. | 8.9 | 17 |
| 38 | Finite Rate Quantized Distributed optimization with Geometric Convergence. , 2018, , . | | 16 |
| 39 | Asynchronous parallel algorithms for nonconvex optimization. Mathematical Programming, 2020, 184, 121-154. | 2.4 | 16 |
| 40 | Distributed nonconvex optimization over time-varying networks. , 2016, , . | | 14 |
| 41 | Distributed big-data optimization via block-iterative convexification and averaging. , 2017, , . | | 12 |
| 42 | Distributed Big-Data Optimization via Blockwise Gradient Tracking. IEEE Transactions on Automatic Control, 2021, 66, 2045-2060. | 5.7 | 12 |
| 43 | Asynchronous Optimization Over Graphs: Linear Convergence Under Error Bound Conditions. IEEE Transactions on Automatic Control, 2021, 66, 4604-4619. | 5.7 | 11 |
| 44 | Non-cooperative games with minmax objectives. Computational Optimization and Applications, 2014, 59, 85-112. | 1.6 | 8 |
| 45 | Distributed nonconvex optimization for sparse representation. , 2017, , . | | 8 |
| 46 | Ghost Penalties in Nonconvex Constrained Optimization: Diminishing Stepsizes and Iteration Complexity. Mathematics of Operations Research, 2021, 46, 595-627. | 1.3 | 8 |
| 47 | An Accelerated Second-Order Method for Distributed Stochastic Optimization. , 2021, , . | | 7 |
| 48 | Finite-Bit Quantization for Distributed Algorithms With Linear Convergence. IEEE Transactions on Information Theory, 2022, 68, 7254-7280. | 2.4 | 7 |
| 49 | Large-scale nonconvex stochastic optimization by Doubly Stochastic Successive Convex approximation. , 2017, , . | | 5 |
| 50 | Distributed big-data optimization via block communications. , 2017, , . | | 5 |
| 51 | Topology-agnostic average consensus in sensor networks with limited data rate. , 2017, , . | | 5 |
| 52 | Finite Rate Distributed Weight-Balancing and Average Consensus Over Digraphs. IEEE Transactions on Automatic Control, 2021, 66, 4530-4545. | 5.7 | 5 |
| 53 | Parallel asynchronous lock-free algorithms for nonconvex big-data optimization. , 2016, , . | | 4 |
| 54 | Distributed Quantized Weight-Balancing and Average Consensus Over Digraphs. , 2018, , . | | 4 |

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 55 | Nonconvex Optimization for Signal Processing and Machine Learning [From the Guest Editors]. IEEE Signal Processing Magazine, 2020, 37, 15-17. | 5.6 | 4 |
| 56 | Iteration Complexity of a Fixed-Stepsize SQP Method for Nonconvex Optimization with Convex Constraints. Springer Proceedings in Mathematics and Statistics, 2021, , 109-120. | 0.2 | 4 |
| 57 | A Unified Algorithmic Framework for Distributed Composite Optimization. , 2020, , . | | 3 |
| 58 | A Unified Contraction Analysis of a Class of Distributed Algorithms for Composite Optimization. , 2019, , . | | 2 |
| 59 | Diminishing stepsize methods for nonconvex composite problems via ghost penalties: from the general to the convex regular constrained case. Optimization Methods and Software, 2022, 37, 1242-1268. | 2.4 | 2 |
| 60 | Kernel Bi-Linear Modeling for Reconstructing Data on Manifolds: The Dynamic-MRI Case. , 2021, , . | | 1 |
| 61 | Kernel Regression Imputation in Manifolds Via Bi-Linear Modeling: The Dynamic-MRI Case. IEEE Transactions on Computational Imaging, 2022, 8, 133-147. | 4.4 | 1 |