

# Tao Liu

## List of Publications by Year in descending order

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94  
papers

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citations

147801

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docs citations

94  
times ranked

2031  
citing authors

| #  | ARTICLE  | IF  | CITATIONS |
|----|--|-----|-----------|
| 1  | Synchronization of complex dynamical networks with switching topology: A switched system point of view. Automatica, 2009, 45, 2502-2511.   | 5.0 | 278       |
| 2  | Robust impulsive synchronization of uncertain dynamical networks. IEEE Transactions on Circuits and Systems Part 1: Regular Papers, 2005, 52, 1431-1441.   | 0.1 | 260       |
| 3  | Stability of Solutions for Stochastic Impulsive Systems via Comparison Approach. IEEE Transactions on Automatic Control, 2008, 53, 2128-2133.  | 5.7 | 140       |
| 4  | Synchronization of Dynamical Networks With Nonidentical Nodes: Criteria and Control. IEEE Transactions on Circuits and Systems I: Regular Papers, 2011, 58, 584-594.   | 5.4 | 123       |
| 5  | Exponential Synchronization of Complex Delayed Dynamical Networks With Switching Topology. IEEE Transactions on Circuits and Systems I: Regular Papers, 2010, 57, 2967-2980.                                 | 5.4 | 117       |
| 6  | Dynamic Event-Triggered Control for Leader-Following Consensus of Multiagent Systems. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2020, 50, 3243-3251.                                      | 9.3 | 115       |
| 7  | A Novel Consensus-Based Economic Dispatch for Microgrids. IEEE Transactions on Smart Grid, 2018, 9, 3920-3922.   | 9.0 | 87        |
| 8  | Fast Distributed Reactive Power Control for Voltage Regulation in Distribution Networks. IEEE Transactions on Power Systems, 2019, 34, 802-805.  | 6.5 | 84        |
| 9  | Impulsive Consensus for Complex Dynamical Networks with Nonidentical Nodes and Coupling Time-Delays. SIAM Journal on Control and Optimization, 2011, 49, 315-338.  | 2.1 | 83        |
| 10 | Global Bounded Synchronization of General Dynamical Networks With Nonidentical Nodes. IEEE Transactions on Automatic Control, 2012, 57, 2656-2662.   | 5.7 | 79        |
| 11 | Stabilisation to input-to-state stability for continuous-time dynamical systems via event-triggered impulsive control with three levels of events. IET Control Theory and Applications, 2018, 12, 1167-1179. | 2.1 | 77        |
| 12 | Input-to-state-stability and criteria for a class of hybrid dynamical systems. Applied Mathematics and Computation, 2018, 326, 124-140.  | 2.2 | 73        |
| 13 | Stability of dynamical networks with non-identical nodes: A multiple Lyapunov function method. Automatica, 2011, 47, 2615-2625.  | 5.0 | 70        |
| 14 | Synchronization of complex delayed dynamical networks with nonlinearly coupled nodes. Chaos, Solitons and Fractals, 2009, 40, 1506-1519.   | 5.1 | 68        |
| 15 | Effects of rotational Inertia on power system damping and frequency transients. , 2015, , .  |     | 68        |
| 16 | Input-to-state exponents and related ISS for delayed discrete-time systems with application to impulsive effects. International Journal of Robust and Nonlinear Control, 2018, 28, 640-660.                  | 3.7 | 67        |
| 17 | Distributed Coordinated Reactive Power Control for Voltage Regulation in Distribution Networks. IEEE Transactions on Smart Grid, 2021, 12, 312-323.  | 9.0 | 61        |
| 18 | A New Formulation of Distribution Network Reconfiguration for Reducing the Voltage Volatility Induced by Distributed Generation. IEEE Transactions on Power Systems, 2020, 35, 496-507.                      | 6.5 | 59        |

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|----|---|-----|-----------|
| 19 | Passivity-based output synchronization of dynamical networks with non-identical nodes. , 2010, , .  |     | 56        |
| 20 | Distributed event-triggered control for asymptotic synchronization of dynamical networks. Automatica, 2017, 86, 199-204.  | 5.0 | 56        |
| 21 | Stabilization to Exponential Input-to-State Stability via Aperiodic Intermittent Control. IEEE Transactions on Automatic Control, 2021, 66, 2913-2919.  | 5.7 | 53        |
| 22 | Distributed MPC-Based Frequency Control in Networked Microgrids With Voltage Constraints. IEEE Transactions on Smart Grid, 2019, 10, 6343-6354.   | 9.0 | 48        |
| 23 | Exponential synchronization of complex delayed dynamical networks with general topology. Physica A: Statistical Mechanics and Its Applications, 2008, 387, 643-652.   | 2.6 | 45        |
| 24 | Output Synchronization of Dynamical Networks with Incrementally-Dissipative Nodes and Switching Topology. IEEE Transactions on Circuits and Systems I: Regular Papers, 2015, 62, 2312-2323.                       | 5.4 | 45        |
| 25 | Non-Disruptive Load-Side Control for Frequency Regulation in Power Systems. IEEE Transactions on Smart Grid, 2016, 7, 2142-2153.  | 9.0 | 45        |
| 26 | Static Voltage Stability Analysis of Distribution Systems Based on Network-Load Admittance Ratio. IEEE Transactions on Power Systems, 2019, 34, 2270-2280.  | 6.5 | 44        |
| 27 | Stability via Hybrid-Event-Time Lyapunov Function and Impulsive Stabilization for Discrete-Time Delayed Switched Systems. SIAM Journal on Control and Optimization, 2014, 52, 1338-1365.                          | 2.1 | 43        |
| 28 | Event-triggered control via impulses for exponential stabilization of discrete-time delayed systems and networks. International Journal of Robust and Nonlinear Control, 2019, 29, 1613-1638.                     | 3.7 | 43        |
| 29 | Synchronization of Dynamical Networks by Network Control. IEEE Transactions on Automatic Control, 2012, 57, 1574-1580.  | 5.7 | 41        |
| 30 | Uniform Stability of Discrete Delay Systems and Synchronization of Discrete Delay Dynamical Networks via Razumikhin Technique. IEEE Transactions on Circuits and Systems I: Regular Papers, 2008, 55, 2795-2805.  | 5.4 | 34        |
| 31 | Robust exponential input-to-state stability of impulsive systems with an application in micro-grids. Systems and Control Letters, 2014, 65, 64-73.  | 2.3 | 33        |
| 32 | Distributed Secondary Frequency Control Algorithm Considering Storage Efficiency. IEEE Transactions on Smart Grid, 2018, 9, 6214-6228.  | 9.0 | 32        |
| 33 | A Distributed Framework for Stability Evaluation and Enhancement of Inverter-Based Microgrids. IEEE Transactions on Smart Grid, 2017, 8, 3020-3034.   | 9.0 | 31        |
| 34 | Network-Based Analysis of Small-Disturbance Angle Stability of Power Systems. IEEE Transactions on Control of Network Systems, 2018, 5, 901-912.  | 3.7 | 31        |
| 35 | Synchronization of dynamical networks with distributed event-based communication. , 2012, , .   |     | 28        |
| 36 | Input-to-state stability type comparison principles and input-to-state stability for discrete-time dynamical networks with time delays. International Journal of Robust and Nonlinear Control, 2013, 23, 450-472. | 3.7 | 23        |

| #  | ARTICLE  | IF  | CITATIONS |
|----|--|-----|-----------|
| 37 | Stability analysis of cyclic switched linear systems: An average cycle dwell time approach. Information Sciences, 2021, 544, 227-237.  | 6.9 | 23        |
| 38 | Impact of DG Connection Topology on the Stability of Inverter-Based Microgrids. IEEE Transactions on Power Systems, 2019, 34, 3970-3972.   | 6.5 | 22        |
| 39 | State-in-mode analysis of the power flow Jacobian for static voltage stability. International Journal of Electrical Power and Energy Systems, 2019, 105, 671-678.                                    | 5.5 | 21        |
| 40 | Time-Driven Adaptive Control of Switched Systems With Application to Electro-Hydraulic Unit. IEEE Transactions on Cybernetics, 2022, 52, 11906-11915.  | 9.5 | 21        |
| 41 | Small-disturbance angle stability analysis of microgrids: A graph theory viewpoint. , 2015, , .  |     | 19        |
| 42 | Hierarchical Voltage Control of Weak Subtransmission Networks With High Penetration of Wind Power. IEEE Transactions on Power Systems, 2018, 33, 187-197.  | 6.5 | 19        |
| 43 | Dynamic Modular Modeling of Smart Loads Associated With Electric Springs and Control. IEEE Transactions on Power Electronics, 2018, 33, 10071-10085.   | 7.9 | 18        |
| 44 | Stability of discrete-time delayed impulsive linear systems with application to multi-tracking. International Journal of Control, 2014, 87, 911-924.   | 1.9 | 16        |
| 45 | On Extension of Effective Resistance With Application to Graph Laplacian Definiteness and Power Network Stability. IEEE Transactions on Circuits and Systems I: Regular Papers, 2019, 66, 4415-4428. | 5.4 | 16        |
| 46 | Synchronization of complex switched delay dynamical networks with simultaneously diagonalizable coupling matrices. Journal of Control Theory and Applications, 2008, 6, 351-356.                     | 0.8 | 14        |
| 47 | Decentralized Event-Triggered Frequency Control With Guaranteed $L_2$ -Gain for Multi-Area Power Systems. , 2021, 5, 373-378.  |     | 13        |
| 48 | Distributed Event-Triggered Control for Synchronization of Dynamical Networks with Estimators*. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 116-121.      | 0.4 | 11        |
| 49 | Exponential stability via event-triggered impulsive control for continuous-time dynamical systems. , 2014, , .   |     | 11        |
| 50 | Two-stage voltage control of subtransmission networks with high penetration of wind power. Control Engineering Practice, 2017, 62, 1-10.   | 5.5 | 11        |
| 51 | Characterization of Cutsets in Networks With Application to Transient Stability Analysis of Power Systems. IEEE Transactions on Control of Network Systems, 2018, 5, 1261-1274.                      | 3.7 | 11        |
| 52 | Review of Some Control Theory Results on Uniform Stability of Impulsive Systems. Mathematics, 2019, 7, 1186.   | 2.2 | 11        |
| 53 | Concurrent Optimal Re/Active Power Control for Wind Farms Under Low-Voltage-Ride-Through Operation. IEEE Transactions on Power Systems, 2020, 35, 4956-4959.   | 6.5 | 11        |
| 54 | Distributed MPC-based frequency control for multi-area power systems with energy storage. Electric Power Systems Research, 2021, 190, 106642.  | 3.6 | 11        |

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|----|--|-----|-----------|
| 55 | Decentralized event-triggered frequency regulation for multi-area power systems. <i>Automatica</i> , 2021, 126, 109479.  | 5.0 | 11        |
| 56 | Synchronization of dynamical networks by network control. , 2009, , .  |     | 9         |
| 57 | Distributed event-triggered control for output synchronization of dynamical networks with non-identical nodes. , 2014, , .   |     | 9         |
| 58 | Distributed Optimal Generation and Load-Side Control for Frequency Regulation in Power Systems. <i>IEEE Transactions on Automatic Control</i> , 2021, 66, 2724-2731.   | 5.7 | 8         |
| 59 | Almost Sure Contraction for Stochastic Switched Impulsive Systems. <i>IEEE Transactions on Automatic Control</i> , 2021, 66, 5393-5400.  | 5.7 | 8         |
| 60 | Exponential input-to-state stability under events for hybrid dynamical networks with coupling time-delays. <i>Journal of the Franklin Institute</i> , 2017, 354, 7476-7503.                                  | 3.4 | 7         |
| 61 | Granulated load-side control of power systems with electric spring aggregators. , 2017, , .  |     | 7         |
| 62 | Switched distributed load-side frequency control of power systems. <i>International Journal of Electrical Power and Energy Systems</i> , 2019, 105, 709-716.   | 5.5 | 7         |
| 63 | Distributed control of active distribution networks to support voltage control in subtransmission networks. <i>International Journal of Electrical Power and Energy Systems</i> , 2020, 117, 105715.         | 5.5 | 7         |
| 64 | Distributed Model Predictive Frequency Control of Inverter-Based Networked Microgrids. <i>IEEE Transactions on Energy Conversion</i> , 2021, 36, 2623-2633.  | 5.2 | 7         |
| 65 | Uniform synchronization for chaotic systems via event-triggered aperiodic intermittent control. <i>Asian Journal of Control</i> , 2020, , .  | 3.0 | 6         |
| 66 | Incremental-Dissipativity-Based Synchronization of Interconnected Systems*. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2011, 44, 8890-8895.                        | 0.4 | 5         |
| 67 | Distributed Control of Active Distribution Networks for Frequency Support. , 2018, , .   |     | 5         |
| 68 | Distributed inter-area oscillation damping control for power systems by using wind generators and load aggregators. <i>International Journal of Electrical Power and Energy Systems</i> , 2020, 123, 106201. | 5.5 | 5         |
| 69 | System-Oriented Power Regulation Scheme for Wind Farms: The Quest for Uncertainty Management. <i>IEEE Transactions on Power Systems</i> , 2021, 36, 4259-4269.   | 6.5 | 5         |
| 70 | Local stability of DC microgrids: A perspective of graph laplacians with self-loops. , 2017, , .   |     | 4         |
| 71 | Granular load-side frequency control with electric spring aggregators and leader-follower consensus. <i>IET Generation, Transmission and Distribution</i> , 2019, 13, 1700-1708.                             | 2.5 | 4         |
| 72 | Incremental-dissipativity-based output synchronization of dynamical networks with switching topology. , 2014, , .  |     | 3         |

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|----|--|------|-----------|
| 73 | Fully distributed voltage control in subtransmission networks via virtual power plants. , 2016, , .  |      | 3         |
| 74 | Transient stability analysis of microgrids with a line-based model. , 2016, , .  |      | 3         |
| 75 | Decentralized Periodic Event-Triggered Frequency Regulation for Multi-Area Power Systems. , 2018, , .  |      | 3         |
| 76 | Intelligent Learning Based Active Power Regulation of Wind Turbines Considering Fatigue Reduction. IEEE Transactions on Industrial Informatics, 2022, 18, 405-414.   | 11.3 | 3         |
| 77 | Synchronization of Discrete-time CDNs via Delayed Impulsive Control*. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2010, 43, 143-148.  | 0.4  | 2         |
| 78 | Coordinated Voltage Control of Weak Sub-transmission Networks Considering Wind Power Variability**The work described in this paper was fully supported by a grant from the Research Grants Council of the Hong Kong Special Administrative Region under Theme-based Research Scheme through Project No. T23-701/14-N.. IFAC-PapersOnLine, 2015, 48, 1-6. | 0.9  | 2         |
| 79 | Distributed load-side frequency regulation for power systems. , 2016, , .  |      | 2         |
| 80 | Event-triggered control for output synchronization of networks with incrementally-dissipative nodes. , 2016, , .   |      | 2         |
| 81 | Closure to Discussion on "A New Formulation of Distribution Network Reconfiguration for Reducing the Voltage Volatility Induced by Distributed Generation" IEEE Transactions on Power Systems, 2020, 35, 4975-4976.  | 6.5  | 2         |
| 82 | Global Finite-Time Stability for Stochastic Impulsive Systems via Comparison Approach. , 2021, , .   |      | 2         |
| 83 | Microgrid Stability Enhancement by Incorporating BESS Droop Gain Tuning. , 2021, , .   |      | 2         |
| 84 | Convex Relaxation of AC Optimal Power Flow With Flexible Transmission Line Impedances. IEEE Transactions on Power Systems, 2022, 37, 3129-3132.  | 6.5  | 2         |
| 85 | Controlled synchronization of complex dynamical networks with nonlinear nodes and couplings. , 2009, , .   |      | 1         |
| 86 | Global Synchronization of Dynamical Networks with Non-identical Nodes: a Multiple V-Lyapunov Function Method. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2010, 43, 137-142.  | 0.4  | 1         |
| 87 | Global Synchronization of Dynamical Networks with Time Delay. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2010, 43, 161-166.  | 0.4  | 1         |
| 88 | Synchronization of delayed dynamical networks with switching topologies. , 2013, , .   |      | 1         |
| 89 | Switched distributed load-side frequency regulation for power systems. , 2016, , .   |      | 1         |
| 90 | Distributed Optimization for Multi-Time Slot Economic Dispatch. , 2019, , .  |      | 1         |

| #  | ARTICLE   | IF  | CITATIONS |
|----|---|-----|-----------|
| 91 | The optimal admittance matrix problem in DC networks. Electric Power Systems Research, 2020, 189, 106754. | 3.6 | 1         |
| 92 | Exponential synchronization of complex delayed dynamical networks with general topology. , 2007, , .      |     | 0         |
| 93 | Input-to-state-K $\hat{a}$ , <sup>*</sup> -stability for a class of hybrid dynamical systems. , 2016, , . |     | 0         |
| 94 | Non-Disruptive MPC-Based Frequency and Voltage Control in Microgrids. , 2021, , .                         |     | 0         |