Qing-Shan Jia

List of Publications by Year
in descending order

176 papers	3,954 citations	186265 28 h-index	144013 57 g-index
180 all docs	180 docs citations	180 times ranked	3301 citing authors

#	ARTICLE	IF	CITATIONS
1	Energy-Efficient Buildings Facilitated by Microgrid. IEEE Transactions on Smart Grid, 2010, 1, 243-252.	9.0	569
2	Event-Based Sensor Data Scheduling: Trade-Off Between Communication Rate and Estimation Quality. IEEE Transactions on Automatic Control, 2013, 58, 1041-1046.	5.7	393
3	Performance Analysis and Comparison on Energy Storage Devices for Smart Building Energy Management. IEEE Transactions on Smart Grid, 2012, 3, 2136-2147.	9.0	256
4	Building Energy Management: Integrated Control of Active and Passive Heating, Cooling, Lighting, Shading, and Ventilation Systems. IEEE Transactions on Automation Science and Engineering, 2013, 10, 588-602.	5.2	177
5	Ordinal Optimization. , 2007, , .		121
6	Matching EV Charging Load With Uncertain Wind: A Simulation-Based Policy Improvement Approach. IEEE Transactions on Smart Grid, 2015, 6, 1425-1433.	9.0	117
7	Simulation optimization in the era of Industrial 4.0 and the Industrial Internet. Journal of Simulation, 2016, 10, 310-320.	1.5	111
8	Distributed Coordination of EV Charging With Renewable Energy in a Microgrid of Buildings. IEEE Transactions on Smart Grid, 2018, 9, 6253-6264.	9.0	110
9	Simulation-Based Policy Improvement for Energy Management in Commercial Office Buildings. IEEE Transactions on Smart Grid, 2012, 3, 2211-2223.	9.0	89
10	Building Energy Doctors: An SPC and Kalman Filter-Based Method for System-Level Fault Detection in HVAC Systems. IEEE Transactions on Automation Science and Engineering, 2014, 11, 215-229.	5.2	89
11	Decentralized EV-Based Charging Optimization With Building Integrated Wind Energy. IEEE Transactions on Automation Science and Engineering, 2019, 16, 1002-1017.	5.2	75
12	Robust Scheduling of EV Charging Load With Uncertain Wind Power Integration. IEEE Transactions on Smart Grid, 2018, 9, 1043-1054.	9.0	69
13	Artificial neural networks for water quality soft-sensing in wastewater treatment: a review. Artificial Intelligence Review, 2022, 55, 565-587.	15.7	64
14	A Multi-Timescale and Bilevel Coordination Approach for Matching Uncertain Wind Supply With EV Charging Demand. IEEE Transactions on Automation Science and Engineering, 2017, 14, 694-704.	5.2	61
15	A tutorial on event-based optimization—a new optimization framework. Discrete Event Dynamic Systems: Theory and Applications, 2014, 24, 103-132.	1.5	54
16	Deep Learning-Based Model Predictive Control for Continuous Stirred-Tank Reactor System. IEEE Transactions on Neural Networks and Learning Systems, 2021, 32, 3643-3652.	11.3	53
17	A sparse deep belief network with efficient fuzzy learning framework. Neural Networks, 2020, 121, 430-440.	5.9	48
18	Event-Based Optimization Within the Lagrangian Relaxation Framework for Energy Savings in HVAC Systems. IEEE Transactions on Automation Science and Engineering, 2015, 12, 1396-1406.	5.2	47

#	Article	IF	Citations
19	An Adaptive Deep Belief Network With Sparse Restricted Boltzmann Machines. IEEE Transactions on Neural Networks and Learning Systems, 2020, 31, 4217-4228.	11.3	46
20	Platform and Algorithm Development for a RFID-Based Indoor Positioning System. Unmanned Systems, 2014, 02, 279-291.	3.6	44
21	On State Aggregation to Approximate Complex Value Functions in Large-Scale Markov Decision Processes. IEEE Transactions on Automatic Control, 2011, 56, 333-344.	5.7	39
22	An RFID indoor positioning system by using weighted path loss and extreme learning machine. , 2013, , .		37
23	An Indoor Localization Algorithm for Lighting Control using RFID. , 2008, , .		35
24	Optimal Control of Multiroom HVAC System: An Event-Based Approach. IEEE Transactions on Control Systems Technology, 2015, , 1-1.	5.2	35
25	Tracking a moving object via a sensor network with a partial information broadcasting scheme. Information Sciences, 2011, 181, 4733-4753.	6.9	34
26	BIM-based PV system optimization and deployment. Energy and Buildings, 2017, 150, 13-22.	6.7	34
27	Vector Ordinal Optimization. Journal of Optimization Theory and Applications, 2005, 125, 259-274.	1.5	33
28	A Structure Property of Optimal Policies for Maintenance Problems WithSafety-Critical Components. IEEE Transactions on Automation Science and Engineering, 2008, 5, 519-531.	5.2	32
29	Event-Based HVAC Controlâ€"A Complexity-Based Approach. IEEE Transactions on Automation Science and Engineering, 2018, 15, 1909-1919.	5.2	32
30	Efficient Real-Time EV Charging Scheduling via Ordinal Optimization. IEEE Transactions on Smart Grid, 2021, 12, 4029-4038.	9.0	31
31	On Solving Optimal Policies for Finite-Stage Event-Based Optimization. IEEE Transactions on Automatic Control, 2011, 56, 2195-2200.	5.7	29
32	A Structural Property of Optimal Policies for Multi-Component Maintenance Problems. IEEE Transactions on Automation Science and Engineering, 2010, 7, 677-680.	5.2	27
33	On Solving Event-Based Optimization With Average Reward Over Infinite Stages. IEEE Transactions on Automatic Control, 2011, 56, 2912-2917.	5.7	27
34	A review on charging behavior of electric vehicles: data, model, and control. Control Theory and Technology, 2020, 18, 217-230.	1.6	27
35	Soft-sensing of Wastewater Treatment Process via Deep Belief Network with Event-triggered Learning. Neurocomputing, 2021, 436, 103-113.	5.9	26
36	On Optimal Partial Broadcasting of Wireless Sensor Networks for Kalman Filtering. IEEE Transactions on Automatic Control, 2012, 57, 715-721.	5.7	25

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37	Learning Optimal Scheduling Policy for Remote State Estimation Under Uncertain Channel Condition. IEEE Transactions on Control of Network Systems, 2020, 7, 579-591.	3.7	25
38	Efficient Computing Budget Allocation for Simulation-Based Policy Improvement. IEEE Transactions on Automation Science and Engineering, 2012, 9, 342-352.	5.2	24
39	Operational Optimization for Microgrid of Buildings with Distributed Solar Power and Battery. Asian Journal of Control, 2017, 19, 996-1008.	3.0	24
40	Long-Term Scheduling for Cascaded Hydro Energy Systems With Annual Water Consumption and Release Constraints. IEEE Transactions on Automation Science and Engineering, 2010, 7, 969-976.	5.2	23
41	Event-driven optimal control of central air-conditioning systems: Event-space establishment. Science and Technology for the Built Environment, 2018, 24, 839-849.	1.7	23
42	A Simulation-Based Policy Improvement Method for Joint-Operation of Building Microgrids With Distributed Solar Power and Battery. IEEE Transactions on Smart Grid, 2018, 9, 6242-6252.	9.0	23
43	Sensor scheduling over a packet-delaying network. Automatica, 2011, 47, 1089-1092.	5.0	22
44	Estimation of occupancy level in indoor environment based on heterogeneous information fusion. , 2010, , .		21
45	Supply Demand Coordination for Building Energy Saving: Explore the Soft Comfort. IEEE Transactions on Automation Science and Engineering, 2015, 12, 656-665.	5.2	19
46	Comparison of selection rules for ordinal optimization. Mathematical and Computer Modelling, 2006, 43, 1150-1171.	2.0	18
47	Advances in simulation optimization and its applications. IIE Transactions, 2013, 45, 683-684.	2.1	18
48	A Decentralized Stay-Time Based Occupant Distribution Estimation Method for Buildings. IEEE Transactions on Automation Science and Engineering, 2015, 12, 1482-1491.	5.2	18
49	An integrative Weighted Path Loss and Extreme Learning Machine approach to Rfid based Indoor Positioning. , 2013, , .		17
50	Efficient computing budget allocation for finding simplest good designs. IIE Transactions, 2013, 45, 736-750.	2.1	16
51	Parameterized Markov decision process and its application to service rate control. Automatica, 2015, 54, 29-35.	5.0	16
52	Smart Building Technology [TC Spotlight]. IEEE Robotics and Automation Magazine, 2014, 21, 18-20.	2.0	15
53	Cyber-physical model for efficient and secured operation of CPES or energy Internet. Science China Information Sciences, 2018, 61, 1.	4.3	15
54	DNA dynamics and computation based on toehold-free strand displacement. Nature Communications, 2021, 12, 4994.	12.8	15

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55	Smart Management of Multiple Energy Systems in Automotive Painting Shop. IEEE Transactions on Automation Science and Engineering, 2013, 10, 603-614.	5.2	14
56	Building occupant level estimation based on heterogeneous information fusion. Information Sciences, 2014, 272, 145-157.	6.9	14
57	Efficient Computing Budget Allocation for Simulation-Based Optimization With Stochastic Simulation Time. IEEE Transactions on Automatic Control, 2013, 58, 539-544.	5.7	13
58	Multi-scale event-based optimization for matching uncertain wind supply with EV charging demand. , 2017, , .		12
59	Joint Optimization for Coordinated Charging Control of Commercial Electric Vehicles Under Distributed Hydrogen Energy Supply. IEEE Transactions on Control Systems Technology, 2022, 30, 835-843.	5.2	12
60	Matching Uncertain Renewable Supply with Electric Vehicle Charging Demandâ€"A Bi-Level Event-Based Optimization Method. Complex System Modeling and Simulation, 2021, 1, 33-44.	5.3	12
61	An integrated control of shading blinds, natural ventilation, and HVAC systems for energy saving and human comfort. , 2010, , .		11
62	Indoor Occupant Positioning System Using Active RFID Deployment and Particle Filters. , 2014, , .		11
63	On distributed event-based optimization for shared economy in cyber-physical energy systems. Science China Information Sciences, 2018, 61, 1.	4.3	11
64	On large action space in EV charging scheduling optimization. Science China Information Sciences, 2022, 65, 1.	4.3	11
65	Bursty Propagation Model for Incidental Events in Blog Networks. Ruan Jian Xue Bao/Journal of Software, 2010, 20, 1384-1392.	0.3	11
66	Control for smart systems: Challenges and trends in smart cities. Annual Reviews in Control, 2022, 53, 358-369.	7.9	11
67	A Review of EV Load Scheduling with Wind Power Integration**This work is supported in part by NSFC (61222302, 61174072, 61221063, 91224008, and U1301254), 111 International Collaboration Program of China (B06002), the National Key Technology R&D Program (2013BAG18B00), TNList Funding for Cross Disciplinary Research, TNList Funding for Excellent Young Scholar, and the Program for New Star of Science and Technology in Beijing (No. xx2014B056). Q.-S. Jia is the corresponding author.. IFAC-PapersOnLine, 2015, 48, 223-228.	0.9	10
68	A Structural Property of Charging Scheduling Policy for Shared Electric Vehicles With Wind Power Generation. IEEE Transactions on Control Systems Technology, 2021, 29, 2393-2405.	5.2	10
69	Multiagent Dynamic Task Assignment Based on Forest Fire Point Model. IEEE Transactions on Automation Science and Engineering, 2022, 19, 833-849.	5.2	10
70	Event-based optimization for dispatching policies in material handling systems of general assembly lines. , 2008, , .		9
71	Remanufacturing planning based on constrained ordinal optimization. Frontiers of Electrical and Electronic Engineering in China: Selected Publications From Chinese Universities, 2011, 6, 443-452.	0.6	9
72	EV charging load scheduling following uncertain renewable energy supply by stochastic matching. , 2014, , .		9

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73	Review of wind power forecasting methods: From multi-spatial and temporal perspective. , 2017, , .		9
74	Predictive Maintenance of VRLA Batteries in UPS towards Reliable Data Centers. IFAC-PapersOnLine, 2020, 53, 13607-13612.	0.9	9
75	Event-based sensor activation for indoor occupant distribution estimation. , 2012, , .		8
76	Estimation of occupant distribution by detecting the entrance and leaving events of zones in building. , 2012, , .		8
77	A systematic method for network topology reconfiguration with limited link additions. Journal of Network and Computer Applications, 2012, 35, 1979-1989.	9.1	8
78	Event-based optimization with non-stationary uncertainties to save energy costs of HVAC systems in buildings. , 2013, , .		8
79	An occupancy distribution estimation method using the surveillance cameras in buildings. , 2017, , .		8
80	A Computing Budget Allocation Method for Minimizing EV Charging Cost Using Uncertain Wind Power. IEEE Transactions on Automation Science and Engineering, 2021, 18, 681-692.	5.2	8
81	Data-driven computation of natural gas pipeline network hydraulics. Results in Control and Optimization, 2020, 1, 100004.	2.3	8
82	An Adaptive Sampling Algorithm for Simulation-Based Optimization With Descriptive Complexity Preference. IEEE Transactions on Automation Science and Engineering, 2011, 8, 720-731.	5.2	7
83	Event-based evacuation in outdoor environment. , 2012, , .		7
84	Event-based optimization for stochastic matching EV charging load with uncertain renewable energy. , 2014, , .		7
85	A review of occupant behavior models in residential building: Sensing, modeling, and prediction. , 2016, , .		7
86	A Game-Theoretic Reinforcement Learning Approach for Adaptive Interaction at Intersections. , 2020, , .		7
87	Planning Remanufacturing Systems by Constrained Ordinal Optimization Method with Feasibility Model. , 0, , .		6
88	Universal Alignment Probability Revisited. Journal of Optimization Theory and Applications, 2009, 141, 371-376.	1.5	6
89	Quantifying Heuristics in the Ordinal Optimization Framework. Discrete Event Dynamic Systems: Theory and Applications, 2010, 20, 441-471.	1.5	6
90	A new method to solve large-scale building energy management for energy saving. , 2014, , .		6

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91	Multi-timescale optimization between distributed wind generators and electric vehicles in microgrid. , 2015, , .		6
92	On supply demand coordination in vehicle-to-grid â€" A brief literature review. , 2018, , .		6
93	On optimal charging scheduling for electric vehicles with wind power generation. Fundamental Research, 2022, , .	3.3	6
94	Supply demand coordination for building energy saving. , 2013, , .		5
95	Guest editorial: event-based control and optimization. Discrete Event Dynamic Systems: Theory and Applications, 2014, 24, 99-102.	1.5	5
96	On Joint Control of Heating, Ventilation, and Air Conditioning and Natural Ventilation in a Meeting Room for Energy Saving. Asian Journal of Control, 2016, 18, 1781-1804.	3.0	5
97	A three-level human movement model in the whole building scale. , 2016, , .		5
98	A Q-Learning Method for Scheduling Shared EVs Under Uncertain User Demand and Wind Power Supply. , 2018, , .		5
99	Bi-level Proximal Policy optimization for Stochastic Coordination of EV Charging Load with Uncertain Wind Power. , 2019, , .		5
100	EV charging load scheduling with high wind power penetration: A robust shortest path approach. , 2015, , .		4
101	Guest Editorial: Special Issue on (Industrial) Internet-of-Things for Smart and Sensing Systems: Issues, Trends, and Applications. IEEE Internet of Things Journal, 2018, 5, 4392-4395.	8.7	4
102	Joint Scheduling of Deferrable Demand and Storage With Random Supply and Processing Rate Limits. IEEE Transactions on Automatic Control, 2021, 66, 5506-5513.	5.7	4
103	A method based on Kolmogorov complexity to improve the efficiency of strategy optimization with limited memory space. , 2006, , .		3
104	Improved constrained ordinal optimization for simulation-based constrained optimization. , 2009, , .		3
105	An Occupant Behavior Model for Building Energy Efficiency and Safety. AIP Conference Proceedings, 2010, , .	0.4	3
106	Approximate Event-Based Optimization for Evacuation. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 372-377.	0.4	3
107	Reconfiguring Networked Infrastructures by Adding Wireless Communication Capabilities to Selected Nodes. IEEE Transactions on Wireless Communications, 2013, 12, 4518-4528.	9.2	3
108	Green Building Facilitated by Supply Demand Coordination in Microgrid. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 7671-7677.	0.4	3

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109	Event-based optimization with random packet dropping. Science China Information Sciences, 2020, 63, 1.	4.3	3
110	A Review on Charging Behavior of Electric Vehicles: Data, Model, and Control. IFAC-PapersOnLine, 2020, 53, 598-601.	0.9	3
111	A Simulation-Based Primal-Dual Approach for Constrained V2G Scheduling in a Microgrid of Building. IEEE Transactions on Automation Science and Engineering, 2023, 20, 1851-1863.	5.2	3
112	A SVM-based method for engine maintenance strategy optimization. , 0, , .		2
113	The Equivalence between Ordinal Optimization in Deterministic Complex Problems and in Stochastic Simulation Problems. Discrete Event Dynamic Systems: Theory and Applications, 2006, 16, 405-411.	1.5	2
114	Discovering the Knowledge Hierarchy of MathWorld for Web Intelligence. , 2009, , .		2
115	Ordinal optimization based security dispatching in deregulated power systems. , 2009, , .		2
116	A Rollout Method for Finite-Stage Event-Based Decision Processes. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2010, 43, 247-252.	0.4	2
117	A near optimal solution for network topology reconfigurations with limited link resources. , 2011, , .		2
118	Efficient topology optimization for a wired networked system by adding wireless communication. , 2012, , .		2
119	Policy iteration for parameterized Markov decision processes and its application. , 2013, , .		2
120	A dual-infrared sensing system for occupant distribution estimation in buildings. , 2014, , .		2
121	Sample path sharing in simulation-based policy improvement. , 2014, , .		2
122	Event-based optimization for multi-room HVAC system. , 2014, , .		2
123	Sample Path Sharing in Policy Improvement for Indoor Air Temperature Control. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 247-252.	0.4	2
124	Optimal storage battery scheduling for energy-efficient buildings in a microgrid. , 2015, , .		2
125	Optimal operation for energy-efficient building micro-grid. , 2015, , .		2
126	The joint scheduling of EV charging load with building mounted wind power using simulation-based policy improvement. , 2016, , .		2

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127	Improving the prediction accuracy of building energy consumption using location of occupant â€" A case study. , 2016, , .		2
128	An ordinal optimization based method for selecting events. , 2017, , .		2
129	Optimization of sensor location for improving wind power prediction accuracy. , 2017, , .		2
130	A Simulation Platform for Sensing System Selection for Occupant Distribution Estimation in Smart Buildings. , 2019, , .		2
131	Optimization of Large-Scale Commercial Electric Vehicles Fleet Charging Location Schedule Under the Distributed wind Power Supply. , 2020, , .		2
132	Dynamic Sampling Allocation for Selecting a Good Enough Alternative. , 2020, , .		2
133	Speed Planning for Autonomous Vehicles at Intersections. , 2021, , .		2
134	Decentralized Multi-agent Reinforcement Learning with Multi-time Scale of Decision Epochs. , 2020, , .		2
135	How much spare capacity is necessary for the security of resource networks?. Physica A: Statistical Mechanics and Its Applications, 2007, 373, 861-873.	2.6	1
136	A potential-based method for finite-stage Markov Decision Process. , 2008, , .		1
137	Tracking moving object via a sensor network with partial information broadcasting scheme. , 2009, , .		1
138	An adaptive sampling algorithm for simulation-based optimization with descriptive complexity constraints. , 2009, , .		1
139	Optimal scheduling of storage devices for building energy saving. , 2012, , .		1
140	Game theoretical control of service rates in closed jackson networks. , 2013, , .		1
141	Weather-forecast based optimal unit scheduling with solar power integration. , 2014, , .		1
142	Event-Based Parallel Simulation with a Sensing System for Occupant Distribution Estimation in the Whole Building Scale. , 2015, , .		1
143	Coordinating EV charging demand with wind supply in a bi-level energy dispatch framework. , 2016, , .		1
144	Stochastic coordination of aggregated electric vehicle charging with on-site wind power at multiple buildings. , 2017, , .		1

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145	Initial location assignment and dynamic reassignment optimization for urban evacuation guiders. , 2017, , .		1
146	Controlling the Internet of Things â€" from Energy Saving to Fast Evacuation in Smart Buildings. Advances in Industrial Control, 2018, , 293-310.	0.5	1
147	On State Aggregation in a Class of Cyber Physical Energy Systems. , 2018, , .		1
148	A Distributed Occupancy Distribution Estimation Method For Smart Buildings. , 2019, , .		1
149	Learning-Based Safety-Critical Motion Planning with Input-to-State Barrier Certificate. , 2021, , .		1
150	Ordinal Optimization-Based Multi-energy System Scheduling for Building Energy Saving. Lecture Notes in Computer Science, 2012, , 251-259.	1.3	1
151	Enhancing the Robustness and Efficiency of Scale-free Network with Limited Link Addition. KSII Transactions on Internet and Information Systems, 0, , .	0.3	1
152	Motion Planning at Intersections with Event-driven Recurrent Q-Learning. IFAC-PapersOnLine, 2020, 53, 17047-17052.	0.9	1
153	Reinforcement Learning with Temporal Logic Constraints. IFAC-PapersOnLine, 2020, 53, 485-492.	0.9	1
154	How Topology Affects Security: An Upper Bound of Electric Power Network Security. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2008, 41, 12947-12952.	0.4	0
155	Dynamic water resources planning with locational release and annual consumption constraints. , 2010, , .		0
156	Prediction-Based Activation in WSN Tracking. , 2010, , .		0
157	On optimal partial broadcasting of wireless sensor networks for Kalman filtering. , 2011, , .		0
158	On Computing Budget Allocation for Finding the Simplest Good Enough Design. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 8247-8252.	0.4	0
159	Fundamentals of Ordinal Optimization. , 2013, , 159-174.		0
160	Applications of Ordinal Optimization. , 2013, , 227-245.		0
161	Local event-based sensor activation for occupant distribution estimation in buildings. , 2014, , .		0
162	Technical Committee on Discrete-Event Systems [Technical Activities]. IEEE Control Systems, 2014, 34, 19-20.	0.8	0

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163	A brief tutorial on event-based optimization with applications in smart buildings. , 2014, , .		0
164	Technical Committee on Discrete-Event Systems [Technical Activities]. IEEE Control Systems, 2015, 35, 30-31.	0.8	0
165	Numerical testbed of a multiple-chiller plant for centralized HVAC systems. , 2015, , .		0
166	Local and global event-based optimization: Performace and complexity. , 2015, , .		0
167	An evacuation guider location optimization method based on road network centrality measures. , 2017, , .		0
168	Design of diamond ring resonator by ordinal optimization. , 2017, , .		0
169	Community-level Geothermal Heat Pump system management via an aggregation-disaggregation framework. , 2017, , .		0
170	On Distributed Optimization for Supply Demand Coordination in Cyber Physical Energy Systems. , 2018, , .		0
171	A Convenient Indoor Positioning Method. , 2018, , .		0
172	Cyber-Physical System-Based Optimization for Multiple Energy Systems with Imperfect State-of-Charge Knowledge of Storage Devices. , 2018, , .		0
173	Guest Editorial Special Section on the 2017 International Conference on Automation Science and Engineering. IEEE Transactions on Automation Science and Engineering, 2020, 17, 1095-1096.	5.2	0
174	The 37th Chinese Control Conference (CCC2018) [Conference Reports]. IEEE Control Systems, 2019, 39, 73-78.	0.8	0
175	An Indoor Occupant Distribution Estimation Method Based on Improved Stay-Time Algorithm. , 2019, , .		0
176	Performance Loss Bound for State Aggregation in a Class of Supply Demand Matching Systems. , 2020, , .		0