

# Michel Bierlaire

## List of Publications by Year in descending order

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146  
papers

7,321  
citations

50170

46  
h-index

62479

80  
g-index

150  
all docs

150  
docs citations

150  
times ranked

4948  
citing authors

#	ARTICLE	IF	CITATIONS
1	Price-based regulation of oligopolistic markets under discrete choice models of demand. <i>Transportation</i> , 2022, 49, 1441-1463.	2.1	4
2	Bayesian Automatic Relevance Determination for Utility Function Specification in Discrete Choice Models. <i>IEEE Transactions on Intelligent Transportation Systems</i> , 2022, 23, 3126-3136.	4.7	6
3	Choice-driven dial-a-ride problem for demand responsive mobility service. <i>Transportation Research Part B: Methodological</i> , 2022, 161, 128-149.	2.8	9
4	Controlling pedestrian flows with moving walkways. <i>Transportation Research Part C: Emerging Technologies</i> , 2022, 141, 103672.	3.9	1
5	Design and analysis of control strategies for pedestrian flows. <i>Transportation</i> , 2021, 48, 1767-1807.	2.1	10
6	A systematic review of machine learning classification methodologies for modelling passenger mode choice. <i>Journal of Choice Modelling</i> , 2021, 38, 100221.	1.2	45
7	Estimation of discrete choice models with hybrid stochastic adaptive batch size algorithms. <i>Journal of Choice Modelling</i> , 2021, 38, 100226.	1.2	3
8	Vehicle sharing systems: A review and a holistic management framework. <i>EURO Journal on Transportation and Logistics</i> , 2021, 10, 100033.	1.3	20
9	Vessel scheduling with pilotage and tugging considerations. <i>Transportation Research, Part E: Logistics and Transportation Review</i> , 2021, 148, 102231.	3.7	18
10	Integrating advanced discrete choice models in mixed integer linear optimization. <i>Transportation Research Part B: Methodological</i> , 2021, 146, 26-49.	2.8	25
11	Assisted specification of discrete choice models. <i>Journal of Choice Modelling</i> , 2021, 39, 100285.	1.2	9
12	A Simulation-Based Heuristic to Find Approximate Equilibria with Disaggregate Demand Models. <i>Transportation Science</i> , 2021, 55, 1025-1045.	2.6	3
13	Are commuter air taxis coming to your city? A ranking of 40 cities in the United States. <i>Transportation Research Part C: Emerging Technologies</i> , 2021, 132, 103392.	3.9	11
14	Passenger-centric timetable rescheduling: A user equilibrium approach. <i>Transportation Research Part C: Emerging Technologies</i> , 2021, 132, 103368.	3.9	7
15	Evaluating the predictive abilities of mixed logit models with unobserved inter- and intra-individual heterogeneity. <i>Journal of Choice Modelling</i> , 2021, 41, 100323.	1.2	14
16	Operational route choice methodologies for practical applications. <i>Transportation</i> , 2020, 47, 43-74.	2.1	2
17	Decision support for strategic energy planning: A robust optimization framework. <i>European Journal of Operational Research</i> , 2020, 280, 539-554.	3.5	57
18	Waste collection inventory routing with non-stationary stochastic demands. <i>Computers and Operations Research</i> , 2020, 113, 104798.	2.4	27

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19	Bayesian estimation of mixed multinomial logit models: Advances and simulation-based evaluations. <i>Transportation Research Part B: Methodological</i> , 2020, 131, 124-142.	2.8	18
20	Overcapacity in European power systems: Analysis and robust optimization approach. <i>Applied Energy</i> , 2020, 259, 113970.	5.1	19
21	Trajectory Data Analysis on the Spatial and Temporal Influence of Pedestrian Flow on Path Planning Decision. <i>Sustainability</i> , 2020, 12, 10419.	1.6	7
22	Airline customers' connection time preferences in domestic U.S. markets. <i>Journal of Air Transport Management</i> , 2019, 79, 101688.	2.4	6
23	Electrification of urban mobility: The case of catenary-free buses. <i>Transport Policy</i> , 2019, 80, 39-48.	3.4	9
24	A two-stage route optimization algorithm for light aircraft transport systems. <i>Transportation Research Part C: Emerging Technologies</i> , 2019, 100, 259-273.	3.9	9
25	A quasi-equilibrium approach for market clearing in land use microsimulations. <i>Environment and Planning B: Urban Analytics and City Science</i> , 2019, 46, 445-468.	1.0	2
26	A Holistic Decision Making Framework for a Vehicle Sharing System. <i>Communications in Computer and Information Science</i> , 2019, , 306-314.	0.4	0
27	Train timetable design under elastic passenger demand. <i>Transportation Research Part B: Methodological</i> , 2018, 111, 19-38.	2.8	68
28	Modeling purchases of new cars: an analysis of the 2014 French market. <i>Theory and Decision</i> , 2018, 84, 277-303.	0.5	5
29	Data-driven spatio-temporal discretization for pedestrian flow characterization. <i>Transportation Research Part C: Emerging Technologies</i> , 2018, 94, 185-202.	3.9	4
30	A unified framework for rich routing problems with stochastic demands. <i>Transportation Research Part B: Methodological</i> , 2018, 114, 213-240.	2.8	13
31	Real-time management of berth allocation with stochastic arrival and handling times. <i>Journal of Scheduling</i> , 2017, 20, 67-83.	1.3	66
32	The study of the unidirectional quay crane scheduling problem: complexity and risk-aversion. <i>European Journal of Operational Research</i> , 2017, 260, 613-624.	3.5	21
33	Needed reduction in mobility energy consumption to meet the goal of a 2000-watt society. <i>Transportation Research, Part A: Policy and Practice</i> , 2017, 101, 133-148.	2.0	8
34	Estimation of Pedestrian Origin-Destination Demand in Train Stations. <i>Transportation Science</i> , 2017, 51, 981-997.	2.6	17
35	Network design of a transport system based on accelerating moving walkways. <i>Transportation Research Part C: Emerging Technologies</i> , 2017, 80, 310-328.	3.9	21
36	Characterization of input uncertainties in strategic energy planning models. <i>Applied Energy</i> , 2017, 202, 597-617.	5.1	87

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37	Data-driven spatio-temporal discretization for pedestrian flow characterization. <i>Transportation Research Procedia</i> , 2017, 23, 188-207.	0.8	4
38	Hybrid cyclicity: Combining the benefits of cyclic and non-cyclic timetables. <i>Transportation Research Part C: Emerging Technologies</i> , 2017, 75, 228-253.	3.9	32
39	The multi-objective railway timetable rescheduling problem. <i>Transportation Research Part C: Emerging Technologies</i> , 2017, 78, 78-94.	3.9	134
40	A dynamic network loading model for anisotropic and congested pedestrian flows. <i>Transportation Research Part B: Methodological</i> , 2017, 95, 149-168.	2.8	38
41	Introduction to Disaggregate Demand Models. , 2017, , 48-67.		0
42	Exogenous priority rules for the capacitated passenger assignment problem. <i>Transportation Research Part B: Methodological</i> , 2017, 105, 19-42.	2.8	25
43	Mitigating the impact of errors in travel time reporting on mode choice modelling. <i>Journal of Transport Geography</i> , 2017, 62, 236-246.	2.3	31
44	Location choice with longitudinal WiFi data. <i>Journal of Choice Modelling</i> , 2016, 18, 1-17.	1.2	25
45	Passenger centric train timetabling problem. <i>Transportation Research Part B: Methodological</i> , 2016, 89, 107-126.	2.8	88
46	Correcting for endogeneity due to omitted attitudes: Empirical assessment of a modified MIS method using RP mode choice data. <i>Journal of Choice Modelling</i> , 2016, 20, 1-15.	1.2	24
47	Assessing the usage and level-of-service of pedestrian facilities in train stations: A Swiss case study. <i>Transportation Research, Part A: Policy and Practice</i> , 2016, 89, 106-123.	2.0	23
48	Revisiting the route choice problem: A modeling framework based on mental representations. <i>Journal of Choice Modelling</i> , 2016, 19, 1-23.	1.2	12
49	Probabilistic speed-density relationship for pedestrian traffic. <i>Transportation Research Part B: Methodological</i> , 2016, 89, 58-81.	2.8	35
50	Integrating a heterogeneous fixed fleet and a flexible assignment of destination depots in the waste collection VRP with intermediate facilities. <i>Transportation Research Part B: Methodological</i> , 2016, 84, 256-273.	2.8	58
51	Data-Driven Characterisation of Multidirectional Pedestrian Traffic. , 2016, , 43-47.		1
52	Robust Optimization for Strategic Energy Planning. <i>Informatica</i> , 2016, 27, 625-648.	1.5	17
53	Optimizing Fueling Decisions for Locomotives in Railroad Networks. <i>Transportation Science</i> , 2015, 49, 149-159.	2.6	7
54	Introducing a preliminary consists selection in the locomotive assignment problem. <i>Transportation Research, Part E: Logistics and Transportation Review</i> , 2015, 82, 217-237.	3.7	16

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55	Probabilistic Multimodal Map Matching With Rich Smartphone Data. <i>Journal of Intelligent Transportation Systems: Technology, Planning, and Operations</i> , 2015, 19, 134-148.	2.6	41
56	Simulation and optimization: A short review. <i>Transportation Research Part C: Emerging Technologies</i> , 2015, 55, 4-13.	3.9	34
57	Specification of the cross-nested logit model with sampling of alternatives for route choice models. <i>Transportation Research Part B: Methodological</i> , 2015, 80, 220-234.	2.8	23
58	Pedestrian-oriented Flow Characterization. <i>Transportation Research Procedia</i> , 2014, 2, 359-366.	0.8	6
59	Forecasting the Demand for Electric Vehicles: Accounting for Attitudes and Perceptions. <i>Transportation Science</i> , 2014, 48, 483-499.	2.6	128
60	An Integrated Airline Scheduling, Fleeting, and Pricing Model for a Monopolized Market. <i>Computer-Aided Civil and Infrastructure Engineering</i> , 2014, 29, 76-90.	6.3	19
61	Multi-objective airport gate assignment problem in planning and operations. <i>Journal of Advanced Transportation</i> , 2014, 48, 902-926.	0.9	36
62	Associations Generation in Synthetic Population for Transportation Applications. <i>Transportation Research Record</i> , 2014, 2429, 38-50.	1.0	10
63	Integrating psychometric indicators in latent class choice models. <i>Transportation Research, Part A: Policy and Practice</i> , 2014, 64, 135-146.	2.0	35
64	Associations among household characteristics, vehicle characteristics and emissions failures: An application of targeted marketing data. <i>Transportation Research, Part A: Policy and Practice</i> , 2014, 59, 122-133.	2.0	5
65	Estimation of Bid Functions for Location Choice and Price Modeling with a Latent Variable Approach. <i>Networks and Spatial Economics</i> , 2014, 14, 47-65.	0.7	14
66	A branch-and-price algorithm to solve the integrated berth allocation and yard assignment problem in bulk ports. <i>European Journal of Operational Research</i> , 2014, 235, 399-411.	3.5	84
67	A macroscopic loading model for time-varying pedestrian flows in public walking areas. <i>Transportation Research Part B: Methodological</i> , 2014, 69, 60-80.	2.8	64
68	Using semi-open questions to integrate perceptions in choice models. <i>Journal of Choice Modelling</i> , 2014, 10, 11-33.	1.2	32
69	Robust real-time pedestrians detection in urban environments with low-resolution cameras. <i>Transportation Research Part C: Emerging Technologies</i> , 2014, 39, 113-128.	3.9	35
70	A Bayesian approach to detect pedestrian destination-sequences from WiFi signatures. <i>Transportation Research Part C: Emerging Technologies</i> , 2014, 44, 146-170.	3.9	60
71	Multidimensional Indicator Analysis for Transport Policy Evaluation. <i>Transportation Research Record</i> , 2014, 2430, 83-94.	1.0	2
72	An Exact Algorithm for the Integrated Planning of Berth Allocation and Quay Crane Assignment. <i>Transportation Science</i> , 2013, 47, 148-161.	2.6	97

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73	An empirical comparison of travel choice models that capture preferences for compromise alternatives. <i>Transportation</i> , 2013, 40, 549-562.	2.1	52
74	Simulation based population synthesis. <i>Transportation Research Part B: Methodological</i> , 2013, 58, 243-263.	2.8	121
75	Choice probability generating functions. <i>Journal of Choice Modelling</i> , 2013, 8, 1-18.	1.2	36
76	Taste heterogeneity and latent preferences in the choice behaviour of freight transport operators. <i>Transport Policy</i> , 2013, 30, 77-91.	3.4	57
77	Metropolisâ€™Hastings sampling of paths. <i>Transportation Research Part B: Methodological</i> , 2013, 48, 53-66.	2.8	39
78	A probabilistic map matching method for smartphone GPS data. <i>Transportation Research Part C: Emerging Technologies</i> , 2013, 26, 78-98.	3.9	163
79	Exact and heuristic methods to solve the berth allocation problem in bulk ports. <i>Transportation Research, Part E: Logistics and Transportation Review</i> , 2013, 54, 14-31.	3.7	98
80	Sample and Pixel Weighting Strategies for Robust Incremental Visual Tracking. <i>IEEE Transactions on Circuits and Systems for Video Technology</i> , 2013, 23, 898-911.	5.6	11
81	A Simulation-Based Optimization Framework for Urban Transportation Problems. <i>Operations Research</i> , 2013, 61, 1333-1345.	1.2	131
82	Attitudes towards mode choice in Switzerland. <i>Disp</i> , 2013, 49, 101-117.	0.8	65
83	Within-Individual Variation in Preferences. <i>Transportation Research Record</i> , 2013, 2382, 92-101.	1.0	12
84	Happiness and travel mode switching: Findings from a Swiss public transportation experiment. <i>Transport Policy</i> , 2012, 19, 93-104.	3.4	162
85	An analysis of destination choice for opaque airline products using multidimensional binary logit models. <i>Transportation Research, Part A: Policy and Practice</i> , 2012, 46, 1641-1653.	2.0	5
86	Modeling investor behavior. <i>Journal of Choice Modelling</i> , 2012, 5, 98-130.	1.2	3
87	Scale Invariant Feature Transform on the Sphere: Theory and Applications. <i>International Journal of Computer Vision</i> , 2012, 98, 217-241.	10.9	105
88	A tractable analytical model for large-scale congested protein synthesis networks. <i>European Journal of Operational Research</i> , 2012, 219, 588-597.	3.5	4
89	Running Urban Microsimulations Consistently with Real-World Data. <i>Communications in Computer and Information Science</i> , 2012, , 181-199.	0.4	0
90	Dynamic facial expression recognition with a discrete choice model. <i>Journal of Choice Modelling</i> , 2011, 4, 95-148.	1.2	9

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91	Dynamic network loading: A stochastic differentiable model that derives link state distributions. <i>Transportation Research Part B: Methodological</i> , 2011, 45, 1410-1423.	2.8	47
92	Dynamic network loading: a stochastic differentiable model that derives link state distributions. <i>Procedia, Social and Behavioral Sciences</i> , 2011, 17, 364-381.	0.5	6
93	Uncertainty feature optimization: An implicit paradigm for problems with noisy data. <i>Networks</i> , 2011, 57, 270-284.	1.6	8
94	Bayesian Demand Calibration for Dynamic Traffic Simulations. <i>Transportation Science</i> , 2011, 45, 541-561.	2.6	64
95	Capturing Human Perception of Facial Expressions by Discrete Choice Modelling. , 2010, , 101-136.		1
96	On Path Generation Algorithms for Route Choice Models. , 2010, , 307-315.		3
97	Constraint-specific recovery network for solving airline recovery problems. <i>Computers and Operations Research</i> , 2010, 37, 1014-1026.	2.4	69
98	Modelling human perception of static facial expressions. <i>Image and Vision Computing</i> , 2010, 28, 790-806.	2.7	14
99	Cascade of descriptors to detect and track objects across any network of cameras. <i>Computer Vision and Image Understanding</i> , 2010, 114, 624-640.	3.0	82
100	A Heuristic for Nonlinear Global Optimization. <i>INFORMS Journal on Computing</i> , 2010, 22, 59-70.	1.0	30
101	Development of Prototype Urbansim Models. <i>Environment and Planning B: Planning and Design</i> , 2010, 37, 344-366.	1.7	19
102	Analysis of Implicit Choice Set Generation Using a Constrained Multinomial Logit Model. <i>Transportation Research Record</i> , 2010, 2175, 92-97.	1.0	30
103	Disaggregate models with aggregate data: Two UrbanSim applications. <i>Journal of Transport and Land Use</i> , 2010, 3, .	0.7	22
104	Dealing with singularities in nonlinear unconstrained optimization. <i>European Journal of Operational Research</i> , 2009, 196, 33-42.	3.5	3
105	An analytic finite capacity queueing network model capturing the propagation of congestion and blocking. <i>European Journal of Operational Research</i> , 2009, 196, 996-1007.	3.5	114
106	Selected papers from the sixth Triennial symposium on transportation analysis (TRISTAN VI), Phuket, Thailand, June 11-15, 2007, Special Issue of <i>Transportation Research Part C: Emerging Technologies</i> , 2009, 17, 105.	3.9	0
107	Specification, estimation and validation of a pedestrian walking behavior model. <i>Transportation Research Part B: Methodological</i> , 2009, 43, 36-56.	2.8	203
108	Discrete choice models with multiplicative error terms. <i>Transportation Research Part B: Methodological</i> , 2009, 43, 494-505.	2.8	81

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109	Sampling of alternatives for route choice modeling. Transportation Research Part B: Methodological, 2009, 43, 984-994.	2.8	162
110	Geometric Video Approximation Using Weighted Matching Pursuit. IEEE Transactions on Image Processing, 2009, 18, 1703-1716.	6.0	4
111	Pedestrians Choices. , 2009, , 1-26.		21
112	Route choice modeling with network-free data. Transportation Research Part C: Emerging Technologies, 2008, 16, 187-198.	3.9	89
113	Income and distance elasticities of values of travel time savings: New Swiss results. Transport Policy, 2008, 15, 173-185.	3.4	91
114	The estimation of generalized extreme value models from choice-based samples. Transportation Research Part B: Methodological, 2008, 42, 381-394.	2.8	55
115	Object detection and matching in a mixed network of fixed and mobile cameras. , 2008, , .		2
116	A master-slave approach for object detection and matching with fixed and mobile cameras. , 2008, , .		16
117	Halton Sampling for Image Registration Based on Mutual Information. Sampling Theory in Signal and Information Processing, 2008, 7, 141-171.	0.2	34
118	Capturing correlation with subnetworks in route choice models. Transportation Research Part B: Methodological, 2007, 41, 363-378.	2.8	160
119	Normalization and correlation of cross-nested logit models. Transportation Research Part B: Methodological, 2007, 41, 795-808.	2.8	43
120	A practical test for the choice of mixing distribution in discrete choice models. Transportation Research Part B: Methodological, 2007, 41, 784-794.	2.8	84
121	Modeling Learning in Route Choice. Transportation Research Record, 2007, 2014, 1-8.	1.0	39
122	A multi-iterate method to solve systems of nonlinear equations. European Journal of Operational Research, 2007, 183, 20-41.	3.5	6
123	A general and operational representation of Generalised Extreme Value models. Transportation Research Part B: Methodological, 2006, 40, 285-305.	2.8	94
124	Discrete choice models of pedestrian walking behavior. Transportation Research Part B: Methodological, 2006, 40, 667-687.	2.8	442
125	Behavioral Priors for Detection and Tracking of Pedestrians in Video Sequences. International Journal of Computer Vision, 2006, 69, 159-180.	10.9	101
126	A theoretical analysis of the cross-nested logit model. Annals of Operations Research, 2006, 144, 287-300.	2.6	112



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127	Solving Noisy, Large-Scale Fixed-Point Problems and Systems of Nonlinear Equations. <i>Transportation Science</i> , 2006, 40, 44-63.	2.6	22
128	Discrete Choice Models for Static Facial Expression Recognition. <i>Lecture Notes in Computer Science</i> , 2006, , 710-721.	1.0	13
129	Decision-Aiding Methodology for the School Bus Routing and Scheduling Problem. <i>Transportation Science</i> , 2005, 39, 477-490.	2.6	99
130	Estimation of value of travel-time savings using mixed logit models. <i>Transportation Research, Part A: Policy and Practice</i> , 2005, 39, 221-236.	2.0	141
131	An Efficient Algorithm for Real-Time Estimation and Prediction of Dynamic OD Tables. <i>Operations Research</i> , 2004, 52, 116-127.	1.2	124
132	Discrete Choice Models with Applications to Departure Time and Route Choice. , 2003, , 7-37.		61
133	The total demand scale: a new measure of quality for static and dynamic origin-destination trip tables. <i>Transportation Research Part B: Methodological</i> , 2002, 36, 837-850.	2.8	67
134	Hybrid Choice Models: Progress and Challenges. <i>Marketing Letters</i> , 2002, 13, 163-175.	1.9	482
135	Real Time Simulation of Traffic Demand-Supply Interactions within DynaMIT. <i>Applied Optimization</i> , 2002, , 19-36.	0.4	74
136	Network State Estimation and Prediction for Real-Time Traffic Management. <i>Networks and Spatial Economics</i> , 2001, 1, 293-318.	0.7	138
137	Discrete Choice Methods and their Applications to Short Term Travel Decisions. <i>Profiles in Operations Research</i> , 1999, , 5-33.	0.3	372
138	Investigating Consumers' Tendency to Combine Multiple Shopping Purposes and Destinations. <i>Journal of Marketing Research</i> , 1998, 35, 177.	3.0	113
139	Investigating Consumers's™ Tendency to Combine Multiple Shopping Purposes and Destinations. <i>Journal of Marketing Research</i> , 1998, 35, 177-188.	3.0	99
140	On The Overspecification of Multinomial and Nested Logit Models Due to Alternative Specific Constants. <i>Transportation Science</i> , 1997, 31, 363-371.	2.6	20
141	Demand Simulation for Dynamic Traffic Assignment. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 1997, 30, 633-637.	0.4	25
142	Meuse: An origin-destination matrix estimator that exploits structure. <i>Transportation Research Part B: Methodological</i> , 1995, 29, 47-60.	2.8	40
143	On iterative algorithms for linear least squares problems with bound constraints. <i>Linear Algebra and Its Applications</i> , 1991, 143, 111-143.	0.4	53
144	Multiclass Speed-Density Relationship for Pedestrian Traffic. <i>Transportation Science</i> , 0, , .	2.6	2

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145	Individual Mobility Analysis Using Smartphone Data. Advances in Data Mining and Database Management Book Series, 0, , 187-208.	0.4	2
146	Individual Mobility Analysis Using Smartphone Data. , 0, , 332-354.		1