

# Armin Seyfried

## List of Publications by Year in descending order

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100  
papers

4,870  
citations

172207

29  
h-index

114278

63  
g-index

108  
all docs

108  
docs citations

108  
times ranked

1418  
citing authors

#	ARTICLE	IF	CITATIONS
1	The fundamental diagram of pedestrian movement revisited. Journal of Statistical Mechanics: Theory and Experiment, 2005, 2005, P10002-P10002.	0.9	425
2	New Insights into Pedestrian Flow Through Bottlenecks. Transportation Science, 2009, 43, 395-406.	2.6	384
3	Generalized centrifugal-force model for pedestrian dynamics. Physical Review E, 2010, 82, 046111.	0.8	276
4	Methods for measuring pedestrian density, flow, speed and direction with minimal scatter. Physica A: Statistical Mechanics and Its Applications, 2010, 389, 1902-1910.	1.2	266
5	Transitions in pedestrian fundamental diagrams of straight corridors and T-junctions. Journal of Statistical Mechanics: Theory and Experiment, 2011, 2011, P06004.	0.9	250
6	Evacuation Dynamics: Empirical Results, Modeling and Applications. , 2009, , 3142-3176.		241
7	COMPARISON OF PEDESTRIAN FUNDAMENTAL DIAGRAM ACROSS CULTURES. International Journal of Modeling, Simulation, and Scientific Computing, 2009, 12, 393-405.	0.9	238
8	Collecting pedestrian trajectories. Neurocomputing, 2013, 100, 127-133.	3.5	228
9	Ordering in bidirectional pedestrian flows and its influence on the fundamental diagram. Journal of Statistical Mechanics: Theory and Experiment, 2012, 2012, P02002.	0.9	226
10	Basics of modelling the pedestrian flow. Physica A: Statistical Mechanics and Its Applications, 2006, 368, 232-238.	1.2	206
11	Automatic Extraction of Pedestrian Trajectories from Video Recordings. , 2010, , 43-54.		97
12	Collective phenomena in crowdsâ€”Where pedestrian dynamics need social psychology. PLoS ONE, 2017, 12, e0177328.	1.1	93
13	Force-based models of pedestrian dynamics. Networks and Heterogeneous Media, 2011, 6, 425-442.	0.5	92
14	Performance of stairs â€” Fundamental diagram and topographical measurements. Transportation Research Part C: Emerging Technologies, 2013, 37, 268-278.	3.9	84
15	Empirical results for pedestrian dynamics and their implications for modeling. Networks and Heterogeneous Media, 2011, 6, 545-560.	0.5	83
16	Experimental Study on Pedestrian Flow through Wide Bottleneck. Transportation Research Procedia, 2014, 2, 26-33.	0.8	79
17	Disentangling the Impact of Social Groups on Response Times and Movement Dynamics in Evacuations. PLoS ONE, 2015, 10, e0121227.	1.1	79
18	Enhanced Empirical Data for the Fundamental Diagram and the Flow Through Bottlenecks. , 2010, , 145-156.		76

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19	Comparison of intersecting pedestrian flows based on experiments. Physica A: Statistical Mechanics and Its Applications, 2014, 405, 316-325.	1.2	75
20	VALIDATION OF CA MODELS OF PEDESTRIAN DYNAMICS WITH FUNDAMENTAL DIAGRAM. Cybernetics and Systems, 2009, 40, 367-389.	1.6	73
21	Fundamental diagrams for multidirectional pedestrian flows. Journal of Statistical Mechanics: Theory and Experiment, 2017, 2017, 033404.	0.9	70
22	Experimental study of pedestrian behaviors in a corridor based on digital image processing. Fire Safety Journal, 2012, 47, 8-15.	1.4	69
23	Universal flow-density relation of single-file bicycle, pedestrian and car motion. Physics Letters, Section A: General, Atomic and Solid State Physics, 2014, 378, 3274-3277.	0.9	63
24	MODELING THE DYNAMIC ROUTE CHOICE OF PEDESTRIANS TO ASSESS THE CRITICALITY OF BUILDING EVACUATION. International Journal of Modeling, Simulation, and Scientific Computing, 2012, 15, 1250029.	0.9	58
25	Measuring the steady state of pedestrian flow in bottleneck experiments. Physica A: Statistical Mechanics and Its Applications, 2016, 461, 248-261.	1.2	55
26	Strong dependence of percolation thresholds on polydispersity. Europhysics Letters, 2002, 58, 28-34.	0.7	44
27	Linking pedestrian flow characteristics with stepping locomotion. Physica A: Statistical Mechanics and Its Applications, 2018, 500, 106-120.	1.2	41
28	Phase Coexistence in Congested States of Pedestrian Dynamics. Lecture Notes in Computer Science, 2010, , 496-505.	1.0	41
29	Evacuation Dynamics: Empirical Results, Modeling and Applications. , 2011, , 517-550.		40
30	Empirical Characteristics of Different Types of Pedestrian Streams. Procedia Engineering, 2013, 62, 655-662.	1.2	39
31	Crowds in front of bottlenecks at entrances from the perspective of physics and social psychology. Journal of the Royal Society Interface, 2020, 17, 20190871.	1.5	39
32	Empirical Results for Pedestrian Dynamics and their Implications for Cellular Automata Models. , 2009, , 27-43.		38
33	Quantification of Bottleneck Effects for Different Types of Facilities. Transportation Research Procedia, 2014, 2, 51-59.	0.8	35
34	Modelling Single File Pedestrian Motion Across Cultures. Procedia, Social and Behavioral Sciences, 2013, 104, 698-707.	0.5	30
35	Fundamentals of Pedestrian and Evacuation Dynamics. Advances in Mechatronics and Mechanical Engineering, 2009, , 124-154.	1.0	27
36	Jamming transitions in force-based models for pedestrian dynamics. Physical Review E, 2015, 92, 042809.	0.8	26

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37	Collision-free nonuniform dynamics within continuous optimal velocity models. <i>Physical Review E</i> , 2014, 90, 042812.	0.8	25
38	Efficient and validated simulation of crowds for an evacuation assistant. <i>Computer Animation and Virtual Worlds</i> , 2012, 23, 3-15.	0.7	23
39	Pedestrian Dynamics: From Empirical Results to Modeling. <i>Modeling and Simulation in Science, Engineering and Technology</i> , 2018, , 63-102.	0.4	23
40	Empirical Data for Pedestrian Flow Through Bottlenecks. , 2009, , 189-199.		23
41	Collision-Free Speed Model for Pedestrian Dynamics. , 2016, , 225-232.		22
42	Anticipation in a velocity-based model for pedestrian dynamics. <i>Transportation Research Part C: Emerging Technologies</i> , 2021, 133, 103464.	3.9	22
43	T-junction: Experiments, trajectory collection, and analysis. , 2011, , .		20
44	A Glossary for Research on Human Crowd Dynamics. <i>Collective Dynamics</i> , 0, 4, .	0.0	19
45	HYPER-SYSTOLIC PROCESSING ON APE100/QUADRICS: n2-LOOP COMPUTATIONS. <i>International Journal of Modern Physics C</i> , 1996, 07, 485-501.	0.8	18
46	A map representation of the ASET-RSET concept. <i>Fire Safety Journal</i> , 2020, 115, 103154.	1.4	18
47	Comparative Analysis of Pedestrian, Bicycle and Car Traffic Moving in Circuits. <i>Procedia, Social and Behavioral Sciences</i> , 2013, 104, 1130-1138.	0.5	17
48	From Traffic and Pedestrian Follow-the-Leader Models with Reaction Time to First Order Convection-Diffusion Flow Models. <i>SIAM Journal on Applied Mathematics</i> , 2018, 78, 63-79.	0.8	17
49	Congestion Dynamics in Pedestrian Single-File Motion. , 2016, , 89-96.		17
50	Parallel real time computation of large scale pedestrian evacuations. <i>Advances in Engineering Software</i> , 2013, 60-61, 98-103.	1.8	16
51	Prediction of pedestrian dynamics in complex architectures with artificial neural networks. <i>Journal of Intelligent Transportation Systems: Technology, Planning, and Operations</i> , 2020, 24, 556-568.	2.6	15
52	Hyper-systolic parallel computing. <i>IEEE Transactions on Parallel and Distributed Systems</i> , 1998, 9, 97-108.	4.0	13
53	Quantitative Description of Pedestrian Dynamics with a Force-Based Model. , 2009, , .		13
54	Modelling of Pedestrian and Evacuation Dynamics. , 2018, , 1-22.		13

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55	Modeling the Desired Direction in a Force-Based Model for Pedestrian Dynamics. , 2013, , 263-275.		13
56	A representation of partial spatial knowledge: a cognitive map approach for evacuation simulations. Transportmetrica A: Transport Science, 2018, 14, 433-467.	1.3	12
57	Wayfinding and Cognitive Maps for Pedestrian Models. , 2016, , 249-256.		12
58	Empirical Results of Pedestrian and Evacuation Dynamics. , 2018, , 1-29.		12
59	The Fundamental Diagram of Pedestrian Movement Revisited – Empirical Results and Modelling. , 2007, , 305-314.		10
60	Empirical Results for Pedestrian Dynamics at Bottlenecks. Lecture Notes in Computer Science, 2010, , 575-584.	1.0	10
61	Assessment of models for pedestrian dynamics with functional principal component analysis. Physica A: Statistical Mechanics and Its Applications, 2016, 451, 475-489.	1.2	9
62	Experimental study on age and gender differences in microscopic movement characteristics of students*. Chinese Physics B, 2021, 30, 098902.	0.7	9
63	Influence of individual factors on fundamental diagrams of pedestrians. Physica A: Statistical Mechanics and Its Applications, 2022, 595, 127077.	1.2	9
64	Field Studies on the Capacity of Escalators. Transportation Research Procedia, 2014, 2, 213-218.	0.8	8
65	Quantitative comparison of estimations for the density within pedestrian streams. Journal of Statistical Mechanics: Theory and Experiment, 2015, 2015, P06030.	0.9	8
66	Prediction Accuracy of Evacuation Times for High-Rise Buildings and Simple Geometries by Using Different Software-Tools. , 2009, , 395-400.		7
67	Fundamental Diagram and Validation of Crowd Models. Lecture Notes in Computer Science, 2008, , 563-566.	1.0	7
68	Basic Driving Dynamics of Cyclists. Lecture Notes in Computer Science, 2014, , 18-32.	1.0	7
69	RELIABILITY ISSUES IN THE MICROSCOPIC MODELING OF PEDESTRIAN MOVEMENT. , 2011, , .		6
70	Prolonged clogs in bottleneck simulations for pedestrian dynamics. Physica A: Statistical Mechanics and Its Applications, 2021, 573, 125934.	1.2	6
71	On Force-Based Modeling of Pedestrian Dynamics. The Kluwer International Series in Video Computing, 2013, , 23-41.	0.7	6
72	Methodology for Generating Individualised Trajectories from Experiments. , 2016, , 3-10.		6

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73	Modeling Stop-and-Go Waves in Pedestrian Dynamics. Lecture Notes in Computer Science, 2010, , 561-568.	1.0	6
74	An attempt to distinguish physical and socio-psychological influences on pedestrian bottleneck. Royal Society Open Science, 2022, 9, .	1.1	6
75	Scaling of gauge balls and static potential in the confinement phase of the pure U(1) lattice gauge theory. Nuclear Physics, Section B, Proceedings Supplements, 1998, 63, 691-693.	0.5	5
76	Conception, Development, Installation and Evaluation of a Real Time Evacuation Assistant for Complex Buildings. Procedia, Social and Behavioral Sciences, 2013, 104, 728-736.	0.5	5
77	Experimental studies of pedestrian flows under different boundary conditions. , 2014, , .		5
78	Prediction of Pedestrian Speed with Artificial Neural Networks. , 2019, , 327-335.		5
79	Effects of Boundary Conditions on Single-File Pedestrian Flow. Lecture Notes in Computer Science, 2014, , 462-469.	1.0	5
80	HERMES: An Evacuation Assistant for Large Sports Arenas Based on Microscopic Simulations of Pedestrian Dynamics. , 2013, , 287-298.		5
81	Pedestrian Dynamics with Event-Driven Simulation. , 2010, , 713-718.		5
82	Universality of the gauge-ball spectrum of the four-dimensional pure U (1) gauge theory. Nuclear Physics B, 1999, 545, 607-619.	0.9	4
83	Analysis of Space Usage on Train Station Platforms Based on Trajectory Data. Sustainability, 2020, 12, 8325.	1.6	4
84	Influence of the number of predecessors in interaction within acceleration-based flow models. Journal of Physics A: Mathematical and Theoretical, 2017, 50, 345102.	0.7	3
85	Modelling of Pedestrian and Evacuation Dynamics. , 2019, , 649-669.		3
86	Fundamental Diagram of Stairs: Critical Review and Topographical Measurements. , 2014, , 329-344.		3
87	Empirical Results of Pedestrian and Evacuation Dynamics. , 2019, , 671-699.		2
88	Analysis of Crowd Dynamics with Laboratory Experiments. The Kluwer International Series in Video Computing, 2013, , 67-97.	0.7	2
89	Influence of Gender on the Fundamental Diagram and Gait Characteristics. , 2019, , 225-234.		2
90	Empirical Study and Modelling of Pedestrians' Route Choice in a Complex Facility. , 2014, , 251-265.		2

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91	Tracking People in Crowded Scenes. , 2014, , 533-542.		2
92	Special Issue on Vehicular and Pedestrian Traffic Flow from Data to Models. Transportmetrica A: Transport Science, 2018, 14, 373-374.	1.3	1
93	Artificial Neural Networks Predicting Pedestrian Dynamics in Complex Buildings. Springer Proceedings in Mathematics and Statistics, 2019, , 363-372.	0.1	1
94	Detection of Steady State in Pedestrian Experiments. , 2016, , 73-79.		1
95	Network Simulation for Pedestrian Flows with HyDEFS. Collective Dynamics, 0, 5, .	0.0	1
96	Level of Safety Concept for Major Events. , 2016, , 337-344.		1
97	Quantitative Validation of the Generalized Centrifugal Force Model. , 2014, , 603-613.		0
98	Hybrid Tracking System for Pedestrians in Dense Crowds. , 2019, , 195-203.		0
99	Modeling of Position Finding in Waiting Processes on Platforms. Springer Proceedings in Physics, 2020, , 233-240.	0.1	0
100	Influence of Corridor Width and Motivation on Pedestrians in Front of Bottlenecks. Springer Proceedings in Physics, 2020, , 3-9.	0.1	0