

Gustav M Markkula

List of Publications by Year in descending order

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Version: 2024-02-01

44
papers

1,428
citations

394421

19
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361022

35
g-index

49
all docs

49
docs citations

49
times ranked

952
citing authors

#	ARTICLE	IF	CITATIONS
1	Effects of Cognitive Load on Driving Performance: The Cognitive Control Hypothesis. Human Factors, 2017, 59, 734-764.	3.5	145
2	Toward Computational Simulations of Behavior During Automated Driving Takeovers: A Review of the Empirical and Modeling Literatures. Human Factors, 2019, 61, 642-688.	3.5	142
3	A farewell to brake reaction times? Kinematics-dependent brake response in naturalistic rear-end emergencies. Accident Analysis and Prevention, 2016, 95, 209-226.	5.7	107
4	Defining interactions: a conceptual framework for understanding interactive behaviour in human and automated road traffic. Theoretical Issues in Ergonomics Science, 2020, 21, 728-752.	1.8	95
5	Coming back into the loop: Drivers' perceptual-motor performance in critical events after automated driving. Accident Analysis and Prevention, 2017, 108, 9-18.	5.7	84
6	A Review of Near-Collision Driver Behavior Models. Human Factors, 2012, 54, 1117-1143.	3.5	77
7	Driver Distraction Detection with a Camera Vision System. , 2007, , .		73
8	Pedestrian Models for Autonomous Driving Part II: High-Level Models of Human Behavior. IEEE Transactions on Intelligent Transportation Systems, 2021, 22, 5453-5472.	8.0	62
9	Towards the Automotive HMI of the Future: Overview of the AIDE-Integrated Project Results. IEEE Transactions on Intelligent Transportation Systems, 2010, 11, 567-578.	8.0	52
10	Sustained sensorimotor control as intermittent decisions about prediction errors: computational framework and application to ground vehicle steering. Biological Cybernetics, 2018, 112, 181-207.	1.3	45
11	Great expectations: a predictive processing account of automobile driving. Theoretical Issues in Ergonomics Science, 2018, 19, 156-194.	1.8	41
12	Using perceptual cues for brake response to a lead vehicle: Comparing threshold and accumulator models of visual looming. Accident Analysis and Prevention, 2018, 118, 114-124.	5.7	41
13	Getting Back Into the Loop: The Perceptual-Motor Determinants of Successful Transitions out of Automated Driving. Human Factors, 2019, 61, 1037-1065.	3.5	38
14	Learning to interpret novel eHMI: The effect of vehicle kinematics and eHMI familiarity on pedestrian's crossing behavior. Journal of Safety Research, 2022, 80, 270-280.	3.6	38
15	Modeling driver control behavior in both routine and near-accident driving. Proceedings of the Human Factors and Ergonomics Society, 2014, 58, 879-883.	0.3	35
16	Understanding the Messages Conveyed by Automated Vehicles. , 2019, , .		34
17	Comparing and validating models of driver steering behaviour in collision avoidance and vehicle stabilisation. Vehicle System Dynamics, 2014, 52, 1658-1680.	3.7	32
18	Models of Human Decision-Making as Tools for Estimating and Optimizing Impacts of Vehicle Automation. Transportation Research Record, 2018, 2672, 153-163.	1.9	32

#	ARTICLE	IF	CITATIONS
19	Variable-Drift Diffusion Models of Pedestrian Road-Crossing Decisions. <i>Computational Brain & Behavior</i> , 2022, 5, 60-80.	1.7	22
20	Evidence for a fundamental property of steering. <i>Proceedings of the Human Factors and Ergonomics Society</i> , 2014, 58, 884-888.	0.3	20
21	How Do Drivers Respond to Silent Automation Failures? Driving Simulator Study and Comparison of Computational Driver Braking Models. <i>Human Factors</i> , 2020, 62, 1212-1229.	3.5	20
22	Explaining unsafe pedestrian road crossing behaviours using a Psychophysics-based gap acceptance model. <i>Safety Science</i> , 2022, 154, 105837.	4.9	19
23	Driver behaviour in unexpected critical events and in repeated exposures – a comparison. <i>European Transport Research Review</i> , 2014, 6, 51-60.	4.8	17
24	Effects of experience and electronic stability control on low friction collision avoidance in a truck driving simulator. <i>Accident Analysis and Prevention</i> , 2013, 50, 1266-1277.	5.7	14
25	A quantitative driver model of pre-crash brake onset and control. <i>Proceedings of the Human Factors and Ergonomics Society</i> , 2017, 61, 339-343.	0.3	14
26	Computational modeling of driver pre-crash brake response, with and without off-road glances: Parameterization using real-world crashes and near-crashes. <i>Accident Analysis and Prevention</i> , 2021, 163, 106433.	5.7	14
27	Using Driver Control Models to Understand and Evaluate Behavioral Validity of Driving Simulators. <i>IEEE Transactions on Human-Machine Systems</i> , 2018, 48, 592-603.	3.5	12
28	Accumulation of continuously time-varying sensory evidence constrains neural and behavioral responses in human collision threat detection. <i>PLoS Computational Biology</i> , 2021, 17, e1009096.	3.2	12
29	Steering or braking avoidance response in SHRP2 rear-end crashes and near-crashes: A decision tree approach. <i>Accident Analysis and Prevention</i> , 2021, 154, 106055.	5.7	10
30	Simulating the effect of cognitive load on braking responses in lead vehicle braking scenarios. <i>IET Intelligent Transport Systems</i> , 2018, 12, 427-433.	3.0	9
31	Modelling visual-vestibular integration and behavioural adaptation in the driving simulator. <i>Transportation Research Part F: Traffic Psychology and Behaviour</i> , 2019, 66, 310-323.	3.7	9
32	Drivers use active gaze to monitor waypoints during automated driving. <i>Scientific Reports</i> , 2021, 11, 263.	3.3	9
33	Predicting takeover response to silent automated vehicle failures. <i>PLoS ONE</i> , 2020, 15, e0242825.	2.5	8
34	Comparing merging behaviors observed in naturalistic data with behaviors generated by a machine learned model. , 2021, , .		6
35	Answering questions about consciousness by modeling perception as covert behavior. <i>Frontiers in Psychology</i> , 2015, 6, 803.	2.1	5
36	Cognitive Driver Distraction Improves Straight Lane Keeping: A Cybernetic Control Theoretic Explanation. <i>IFAC-PapersOnLine</i> , 2016, 49, 627-632.	0.9	4

#	ARTICLE	IF	CITATIONS
37	How Do We Study Pedestrian Interaction with Automated Vehicles? Preliminary Findings from the European interACT Project. Lecture Notes in Mobility, 2019, , 21-33.	0.2	4
38	A Simulation Environment for Analysis and Optimization of Driver Models. Lecture Notes in Computer Science, 2011, , 453-462.	1.3	3
39	Evidence Accumulation Account of Human Operators' Decisions in Intermittent Control During Inverted Pendulum Balancing. , 2018, , .		3
40	Creating Kinematics-dependent Pedestrian Crossing Willingness Model When Interacting with Approaching Vehicle. , 2020, , .		1
41	Improving yaw stability control in severe instabilities by means of a validated model of driver steering. , 2015, , .		0
42	Evaluation of Vehicle Ride Height Adjustments Using a Driving Simulator. Vehicles, 2020, 2, 491-506.	3.1	0
43	Towards an Integrated Adaptive Automotive HMI for the Future. Lecture Notes in Computer Science, 2011, , 253-262.	1.3	0
44	Steering is initiated based on error accumulation.. Journal of Experimental Psychology: Human Perception and Performance, 2022, 48, 64-76.	0.9	0