Marco Pierini

List of Publications by Year
in descending order

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88 papers	1,680 citations	331670 21 h-index	345221 36 g-index
90 all docs	90 docs citations	90 times ranked	1266 citing authors

#	Article	IF	Citations
1	Novel high-fidelity tyre model for motorcycles to be characterised by quasi-static manoeuvres â€“ rationale and numerical validation. Vehicle System Dynamics, 2022, 60, 4290-4316.	3.7	3
2	The future of the Autonomous Emergency Braking for Powered-Two-Wheelers: field testing end-usersâ€™ acceptability in realistic riding manoeuvres. IOP Conference Series: Materials Science and Engineering, 2021, 1038, 012016.	0.6	4
3	Human error in motorcycle crashes: A methodology based on in-depth data to identify the skills needed and support training interventions for safe riding. Traffic Injury Prevention, 2021, 22, 294-300.	1.4	11
4	Motorcycle helmet selection and usage for improved safety: A systematic review on the protective effects of helmet type and fastening. Traffic Injury Prevention, 2021, 22, 301-306.	1.4	14
5	Motorcycle Autonomous Emergency Braking (MAEB) employed as enhanced braking: Estimating the potential for injury reduction using real-world crash modeling. Traffic Injury Prevention, 2021, 22, S104-S110.	1.4	9
6	Potential head injury mitigation of M-AEB in real-world motorcycle crashes. International Journal of Crashworthiness, 2020, 25, 591-602.	1.9	8
7	A Low Cost Programmable Hardware for Online Spectroscopy of Lithium Batteries. , 2020, , .		2
8	Design and Testing of a Flash Recharge System for a Bus including foreseen effects in terms of Storage Life Extension. , 2020, , .		1
9	Design of a Motorcycle Steering Damper for a Safer Ride. Machines, 2020, 8, 24.	2.2	4
10	Loss of Control Prediction for Motorcycles during Emergency Braking Maneuvers Using a Supervised Learning Algorithm. Applied Sciences (Switzerland), 2020, 10, 1754.	2.5	7
11	Application of Regenerative Braking on Electric Vehicles. , 2019, , .		7
12	Simplified Modeling and Characterization of the Internal Impedance of Lithium-Ion Batteries for Automotive Applications. , 2019, , .		5
13	Motorcycle active safety systems: Assessment of the function and applicability using a population-based crash data set. Traffic Injury Prevention, 2019, 20, 406-412.	1.4	6
14	Emergency braking performance of motorcycle riders: skill identification in a real-life perception-action task designed for training purposes. Transportation Research Part F: Traffic Psychology and Behaviour, 2019, 63, 93-107.	3.7	22
15	Sustainability assessment for different design solutions within the automotive field. Procedia Structural Integrity, 2019, 24, 906-925.	0.8	9
16	Preliminary effectiveness assessment of an airbag-based device for ridersâ€™ leg protection in side impacts. Procedia Structural Integrity, 2019, 24, 240-250.	0.8	3
17	Design of an after-market lower limb protector for scooters: preliminary estimation of effectiveness. Procedia Structural Integrity, 2019, 24, 448-454.	0.8	1
18	Belted Safety Jacket: a new concept in Powered Two-Wheeler passive safety. Procedia Structural Integrity, 2018, 8, 573-593.	0.8	9

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19	Challenges for modelling and integrating environmental performances in concept design: the case of an automotive component lightweighting. International Journal of Sustainable Engineering, 2018, 11, 135-148.	3.5	18
20	Analysis of the main elements affecting social LCA applications: challenges for the automotive sector. International Journal of Life Cycle Assessment, 2018, 23, 519-535.	4.7	41
21	Life Cycle Assessment in the automotive sector: a comparative case study of Internal Combustion Engine (ICE) and electric car. Procedia Structural Integrity, 2018, 12, 521-537.	0.8	98
22	Simulation of crash events for an electric four wheel vehicle. Procedia Structural Integrity, 2018, 12, 249-264.	0.8	5
23	Online State of Health Estimation of Lithium-Ion Batteries Based on Improved Ampere-Count Method. , 2018, , .		19
24	Take-Home Messages from the Applications of Life Cycle Assessment on Lightweight Automotive Components. , 2018, , .		5
25	Motorcycles that See: Multifocal Stereo Vision Sensor for Advanced Safety Systems in Tilting Vehicles. Sensors, 2018, 18, 295.	3.8	7
26	A comparative analysis of MAIDS and ISO13232 databases for the identification of the most representative impact scenarios for powered 2-wheelers in Europe. Traffic Injury Prevention, 2018, 19, 766-772.	1.4	6
27	First stereo video dataset with ground truth for remote car pose estimation using satellite markers. , 2018, , .		0
28	Satellite markers: a simple method for ground truth car pose on stereo video. , 2018, , .		0
29	The effect of lightweighting in automotive LCA perspective: Estimation of mass-induced fuel consumption reduction for gasoline turbocharged vehicles. Journal of Cleaner Production, 2017, 154, 566-577.	9.3	80
30	Are automatic systems the future of motorcycle safety? A novel methodology to prioritize potential safety solutions based on their projected effectiveness. Traffic Injury Prevention, 2017, 18, 877-885.	1.4	13
31	Innovative composites and hybrid materials for electric vehicles lightweight design in a sustainability perspective. Materials Today Communications, 2017, 13, 192-209.	1.9	80
32	End-of-Life in the railway sector: Analysis of recyclability and recoverability for different vehicle case studies. Waste Management, 2017, 60, 439-450.	7.4	23
33	Application of induction power recharge to garbage collection service. , 2017, , .		21
34	Lightweight Design Solutions in the Automotive Field: Environmental Modelling Based on Fuel Reduction Value Applied to Diesel Turbocharged Vehicles. Sustainability, 2016, 8, 1167.	3.2	37
35	Electric and diesel microbuses driving cycles in Firenze city center. , 2016, , .		6
36	Representative surrogate problems as test functions for expensive simulators in multidisciplinary design optimization of vehicle structures. Structural and Multidisciplinary Optimization, 2016, 54, 449-468.	3.5	13

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37	Rider Behavioral Patterns in Braking Manoeuvres. Transportation Research Procedia, 2016, 14, 4374-4383.	1.5	5
38	A comparison of electric vehicles use-case scenarios: Application of a simulation framework to vehicle design optimization and energy consumption assessment. , 2016, , .		4
39	A sustainability analysis for Electric Vehicles batteries including ageing phenomena. , 2016, , .		5
40	Development of driving cycles for electric vehicles in the context of the city of Florence. Transportation Research, Part D: Transport and Environment, 2016, 47, 299-322.	6.8	88
41	Environmental and economic life cycle assessment of a lightweight solution for an automotive component: A comparison between talc-filled and hollow glass microspheres-reinforced polymer composites. Journal of Cleaner Production, 2016, 139, 548-560.	9.3	69
42	Development of a low-cost motorcycle riding simulator for emergency scenarios involving swerving. Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering, 2016, 230, 1891-1903.	1.9	9
43	Exploratory field trial of motorcycle autonomous emergency braking (MAEB): Considerations on the acceptability of unexpected automatic decelerations. Traffic Injury Prevention, 2016, 17, 855-862.	1.4	16
44	Inevitable Collision States for Motorcycle-to-Car Collision Scenarios. IEEE Transactions on Intelligent Transportation Systems, 2016, 17, 2563-2573.	8.0	26
45	Evaluation of the end-of-life performance of a hybrid scooter with the application of recyclability and recoverability assessment methods. Resources, Conservation and Recycling, 2016, 108, 140-155.	10.8	27
46	Advanced sizing optimisation of concept vehicle structures. International Journal of Vehicle Design, 2015, 67, 1.	0.3	7
47	In-depth study of road accidents in Florence: understanding the biomechanical effects in major trauma involving vulnerable road users. Critical Care, 2015, 19, .	5.8	0
48	Static and dynamic experimental validation of analytical homogenization models for corrugated core sandwich panels. Composite Structures, 2015, 125, 343-353.	5.8	13
49	The influence of vehicle front-end design on pedestrian ground impact. Accident Analysis and Prevention, 2015, 79, 56-69.	5.7	78
50	Triggering algorithm based on inevitable collision states for autonomous emergency braking (AEB) in motorcycle-to-car crashes. , 2015, , .		13
51	Life cycle assessment of a plastic air intake manifold. International Journal of Life Cycle Assessment, 2015, 20, 1429-1443.	4.7	32
52	Life Cycle Assessment of a heavy metro train. Journal of Cleaner Production, 2015, 87, 787-799.	9.3	62
53	Sensitivity Analysis of a FE Model for Motorcycle-Car Full-Scale Crash Test. , 2014, , .		4
54	Further Development of Motorcycle Autonomous Emergency Braking (MAEB), What Can In-Depth Studies Tell Us? A Multinational Study. Traffic Injury Prevention, 2014, 15, S165-S172.	1.4	24

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55	Development and validation of an FE model for motorcycleâ€“car crash test simulations. International Journal of Crashworthiness, 2014, 19, 244-263.	1.9	20
56	Equivalent properties for corrugated cores of sandwich structures: A general analytical method. Composite Structures, 2014, 108, 736-746.	5.8	75
57	In-depth investigations of PTW-car accidents caused by human errors. Safety Science, 2014, 68, 212-221.	4.9	34
58	Advanced accident research system based on a medical and engineering data in the metropolitan area of Florence. BMC Emergency Medicine, 2013, 13, 3.	1.9	11
59	An equivalent material formulation for sinusoidal corrugated cores of structural sandwich panels. Composite Structures, 2013, 100, 173-185.	5.8	94
60	Reformulation of the Stochastic BEM to improve the computational efficiency in the prediction of the vibro-acoustic behaviour of structures with uncertainties. Journal of Sound and Vibration, 2013, 332, 2132-2148.	3.9	9
61	Potential error factors in 1D beam FE modeling for the early stage vehicle design. Finite Elements in Analysis and Design, 2013, 74, 53-66.	3.2	9
62	On-field investigation and process modelling of End-of-Life Vehicles treatment in the context of Italian craft-type Authorized Treatment Facilities. Waste Management, 2013, 33, 892-906.	7.4	39
63	Evaluation of an Autonomous Braking System in Real-World PTW Crashes. Traffic Injury Prevention, 2013, 14, 532-543.	1.4	24
64	Analysis of the minimum swerving distance for the development of a motorcycle autonomous braking system. Accident Analysis and Prevention, 2013, 59, 170-184.	5.7	23
65	Assessing the Potential Benefits of the Motorcycle Autonomous Emergency Braking Using Detailed Crash Reconstructions. Traffic Injury Prevention, 2013, 14, S40-S49.	1.4	30
66	Real-time estimation of roadâ€“tyre adherence for motorcycles. Vehicle System Dynamics, 2013, 51, 1839-1852.	3.7	6
67	FE modelling of a motorcycle tyre for full-scale crash simulations. International Journal of Crashworthiness, 2012, 17, 309-318.	1.9	15
68	Decision logic of an active braking system for powered two wheelers. Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering, 2012, 226, 1026-1036.	1.9	31
69	Beam Bounding Box â€“ a novel approach for beam concept modeling and optimization handling. Finite Elements in Analysis and Design, 2012, 60, 13-24.	3.2	16
70	Optimization of the Global Static and Dynamic Performance of a Vehicle Body by Means of Response Surface Models. , 2012, , .		4
71	On the improvement of the solution accuracy for exterior acoustic problems with BEM and FMBEM. Engineering Analysis With Boundary Elements, 2012, 36, 1104-1115.	3.7	7
72	Design and preliminary testing of an haptic handle for powered two wheelers. European Transport Research Review, 2011, 3, 1-9.	4.8	10

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73	Stochastic BEM for the Vibroacoustic Analysis of Three-Dimensional Structures. Advances in Acoustics and Vibration, 2011, 2011, 1-12.	0.5	2
74	A stochastic BEM formulation for vibro-acoustic analysis of structures in the mid-to-high frequency range. , 2010, , .		1
75	A hybrid formulation for mid-frequency analysis of assembled structures. Journal of Sound and Vibration, 2008, 309, 545-568.	3.9	9
76	Strategy-based approach to eco-design: an innovative methodology for systematic integration of ecologic/economic considerations into product development process. International Journal of Sustainable Design, 2008, 1, 29.	0.0	10
77	Strategy-based approach to eco-design: application to an automotive component. International Journal of Vehicle Design, 2008, 46, 156.	0.3	8
78	Design for disassembly: a methodology for identifying the optimal disassembly sequence. Journal of Engineering Design, 2007, 18, 563-575.	2.3	55
79	Vibroacoustic Optimization of Stiffening Ribs and Damping Material Distribution on Sheet Metal Parts. Shock and Vibration, 2004, 11, 271-280.	0.6	5
80	AN ASSESSMENT OF TRANSDUCER MASS LOADING EFFECTS ON THE PARAMETERS OF AN EXPERIMENTAL STATISTICAL ENERGY ANALYSIS (SEA) MODEL. Mechanical Systems and Signal Processing, 2002, 16, 885-903.	8.0	6
81	Designing the Dynamic Behavior of an Engine Suspension System Through Genetic Algorithms. Journal of Vibration and Acoustics, Transactions of the ASME, 2001, 123, 480-486.	1.6	16
82	Determining the Loss Factor by the Power Input Method (PIM), Part 1: Numerical Investigation. Journal of Vibration and Acoustics, Transactions of the ASME, 1999, 121, 417-421.	1.6	10
83	Determining the Loss Factor by the Power Input Method (PIM), Part 2: Experimental Investigation with Impact Hammer Excitation. Journal of Vibration and Acoustics, Transactions of the ASME, 1999, 121, 422-428.	1.6	11
84	SIMPLIFIED FINITE ELEMENT MODELLING OF ACOUSTICALLY TREATED STRUCTURES. Journal of Sound and Vibration, 1997, 204, 705-716.	3.9	0
85	SET UP AND VALIDATION FOR A SIMULATION OF A SCOOTER CONFORT BENCH. , 0, , .		0
86	Improving the Convergence of the Fast Multipole BEM for the Exterior Sound Radiation of a Truck Muffler. SAE International Journal of Commercial Vehicles, 0, 5, 407-419.	0.4	0
87	Development of a Fall Detection Algorithm for Powered Two Wheelers Application. , 0, , .		6
88	Fast Modelling and Identification of Hydraulic Brake Plants for Automotive Applications. International Journal of Fluid Power, 0, , .	0.7	5