Colin Cole

List of Publications by Year
in descending order

104 papers	2,330 citations	218677 26 h-index	276875 41 g-index
104 all docs	104 docs citations	104 times ranked	994 citing authors

#	Article	IF	Citations
1	Longitudinal train dynamics: an overview. Vehicle System Dynamics, 2016, 54, 1688-1714.	3.7	134
2	An overview: modern techniques for railway vehicle on-board health monitoring systems. Vehicle System Dynamics, 2017, 55, 1045-1070.	3.7	123
3	Onboard Condition Monitoring Sensors, Systems and Techniques for Freight Railway Vehicles: A Review. IEEE Sensors Journal, 2019, 19, 4-24.	4.7	114
4	Creep force modelling for rail traction vehicles based on the Fastsim algorithm. Vehicle System Dynamics, 2013, 51, 1765-1783.	3.7	93
5	Modelling, simulation and applications of longitudinal train dynamics. Vehicle System Dynamics, 2017, 55, 1498-1571.	3.7	85
6	Design and Simulation of Rail Vehicles. , 0, , .		84
7	A review of dynamics modelling of friction draft gear. Vehicle System Dynamics, 2014, 52, 733-758.	3.7	76
8	Wagon instability in long trains. Vehicle System Dynamics, 2012, 50, 303-317.	3.7	54
9	Freight train air brake models. International Journal of Rail Transportation, 2023, 11, 1-49.	2.7	52
10	Application of flywheel energy storage for heavy haul locomotives. Applied Energy, 2015, 157, 607-618.	10.1	51
11	Longitudinal Train Dynamics. , 2006, , 239-277.		50
12	International benchmarking of longitudinal train dynamics simulators: results. Vehicle System Dynamics, 2018, 56, 343-365.	3.7	50
13	Advanced dynamic modelling for friction draft gears. Vehicle System Dynamics, 2015, 53, 475-492.	3.7	49
14	Applications of particle swarm optimization in the railway domain. International Journal of Rail Transportation, 2016, 4, 167-190.	2.7	48
15	Longitudinal dynamics and energy analysis for heavy haul trains. Journal of Modern Transportation, 2014, 22, 127-136.	2.5	46
16	An inverse railway wagon model and its applications. Vehicle System Dynamics, 2007, 45, 583-605.	3.7	42
17	Modelling and analysis of the crush zone of a typical Australian passenger train. Vehicle System Dynamics, 2012, 50, 1137-1155.	3.7	40
18	Simplified and advanced modelling of traction control systems of heavy-haul locomotives. Vehicle System Dynamics, 2015, 53, 672-691.	3.7	38

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19	Grey box-based inverse wagon model to predict wheelâ€“rail contact forces from measured wagon body responses. Vehicle System Dynamics, 2008, 46, 469-479.	3.7	37
20	Assessing the effects of track input on the response of insulated rail joints using field experiments. Proceedings of the Institution of Mechanical Engineers, Part F: Journal of Rail and Rapid Transit, 2013, 227, 176-187.	2.0	37
21	Adhesion estimation and its implementation for traction control of locomotives. International Journal of Rail Transportation, 2014, 2, 187-204.	2.7	36
22	A review of hydrogen technologies and engineering solutions for railway vehicle design and operations. Railway Engineering Science, 2021, 29, 212-232.	4.4	36
23	Parallel computing in railway research. International Journal of Rail Transportation, 2020, 8, 111-134.	2.7	35
24	A review of dynamics modelling of friction wedge suspensions. Vehicle System Dynamics, 2014, 52, 1389-1415.	3.7	34
25	International benchmarking of longitudinal train dynamics simulators: benchmarking questions. Vehicle System Dynamics, 2017, 55, 450-463.	3.7	32
26	Co-simulation of a mechatronic system using Gensys and Simulink. Vehicle System Dynamics, 2012, 50, 495-507.	3.7	31
27	Modelling polymer draft gears. Vehicle System Dynamics, 2016, 54, 1208-1225.	3.7	30
28	A co-simulation approach for heavy haul long distance locomotive-track simulation studies. Vehicle System Dynamics, 2019, 57, 1363-1380.	3.7	30
29	Study on track dynamic forces due to rail short-wavelength dip defects using rail vehicle-track dynamics simulations. Journal of Mechanical Science and Technology, 2013, 27, 629-640.	1.5	29
30	Dynamic response feature of electromechanical coupled drive subsystem in a locomotive excited by wheel flat. Engineering Failure Analysis, 2021, 122, 105248.	4.0	28
31	Dynamic performance of locomotive electric drive system under excitation from gear transmission and wheel-rail interaction. Vehicle System Dynamics, 2022, 60, 1806-1828.	3.7	26
32	Investigation of locomotive multibody modelling issues and results assessment based on the locomotive model acceptance procedure. Proceedings of the Institution of Mechanical Engineers, Part F: Journal of Rail and Rapid Transit, 2013, 227, 453-468.	2.0	24
33	Development of a real-time bogie test rig model based on railway specialised multibody software. Vehicle System Dynamics, 2013, 51, 236-250.	3.7	23
34	Computing Schemes for Longitudinal Train Dynamics: Sequential, Parallel and Hybrid. Journal of Computational and Nonlinear Dynamics, 2015, 10, .	1.2	22
35	Parallel Co-Simulation Method for Railway Vehicle-Track Dynamics. Journal of Computational and Nonlinear Dynamics, 2018, 13, .	1.2	22
36	Prediction of rail surface damage in locomotive traction operations using laboratory-field measured and calibrated data. Engineering Failure Analysis, 2022, 135, 106165.	4.0	22

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37	Development of Traction Control for Hauling Locomotives. Journal of System Design and Dynamics, 2011, 5, 1214-1225.	0.3	21
38	Problems, assumptions and solutions in locomotive design, traction and operational studies. Railway Engineering Science, 2022, 30, 265-288.	4.4	21
39	Parallel Computing Scheme for Three-Dimensional Long Train System Dynamics. Journal of Computational and Nonlinear Dynamics, 2017, 12, .	1.2	20
40	Comparison of locomotive energy storage systems for heavy-haul operation. International Journal of Rail Transportation, 2018, 6, 1-15.	2.7	20
41	Monitoring vertical wheelâ€“rail contact forces based on freight wagon inverse modelling. Advances in Mechanical Engineering, 2015, 7, 168781401558543.	1.6	19
42	Railway Air Brake Model and Parallel Computing Scheme. Journal of Computational and Nonlinear Dynamics, 2017, 12, .	1.2	19
43	Methodology to optimize wedge suspensions of three-piece bogies of railway vehicles. JVC/Journal of Vibration and Control, 2018, 24, 565-581.	2.6	19
44	Assessing wagon stability in complex train systems. International Journal of Rail Transportation, 2013, 1, 193-217.	2.7	18
45	Longitudinal heavy haul train simulations and energy analysis for typical Australian track routes. Proceedings of the Institution of Mechanical Engineers, Part F: Journal of Rail and Rapid Transit, 2014, 228, 355-366.	2.0	18
46	Parallel Computing Enables Whole-Trip Train Dynamics Optimizations. Journal of Computational and Nonlinear Dynamics, 2016, 11, .	1.2	18
47	Wheel flat detectability for Y25 railway freight wagon using vehicle component acceleration signals. Vehicle System Dynamics, 2020, 58, 1893-1913.	3.7	17
48	Conceptual designs of hybrid locomotives for application as heavy haul trains on typical track lines. Proceedings of the Institution of Mechanical Engineers, Part F: Journal of Rail and Rapid Transit, 2013, 227, 439-452.	2.0	16
49	Influence of AC system design on the realisation of tractive efforts by high adhesion locomotives. Vehicle System Dynamics, 2017, 55, 1241-1264.	3.7	16
50	Train braking simulation with wheel-rail adhesion model. Vehicle System Dynamics, 2020, 58, 1226-1241.	3.7	16
51	Train energy simulation with locomotive adhesion model. Railway Engineering Science, 2020, 28, 75-84.	4.4	16
52	The dynamic wheelâ€“rail contact stresses for wagon on various tracks. Wear, 2008, 265, 1549-1555.	3.1	15
53	Friction measurement and creep force modelling methodology for locomotive track damage studies. Wear, 2019, 432-433, 202932.	3.1	15
54	Implementation of a wheelâ€“rail temperature model for locomotive traction studies. International Journal of Rail Transportation, 2017, 5, 1-15.	2.7	14

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55	Development and computational performance improvement of the wheel-rail coupling for heavy haul locomotive traction studies. Vehicle System Dynamics, 2022, 60, 156-183.	3.7	14
56	Parallel multiobjective optimisations of draft gear designs. Proceedings of the Institution of Mechanical Engineers, Part F: Journal of Rail and Rapid Transit, 2018, 232, 744-758.	2.0	13
57	Traction modelling in train dynamics. Proceedings of the Institution of Mechanical Engineers, Part F: Journal of Rail and Rapid Transit, 2019, 233, 382-395.	2.0	13
58	Bolster spring fault detection strategy for heavy haul wagons. Vehicle System Dynamics, 2018, 56, 1604-1621.	3.7	12
59	Railway track longitudinal force model. Vehicle System Dynamics, 2021, 59, 155-170.	3.7	11
60	Rail Passenger Vehicle Crashworthiness Simulations Using Multibody Dynamics Approaches. Journal of Computational and Nonlinear Dynamics, 2017, 12, .	1.2	10
61	Examining longitudinal train dynamics in ore car tipplers. Vehicle System Dynamics, 2017, 55, 534-551.	3.7	10
62	Curving resistance from wheel-rail interface. Vehicle System Dynamics, 2022, 60, 1018-1036.	3.7	10
63	Parallel co-simulation of locomotive wheel wear and rolling contact fatigue in a heavy haul train operational environment. Proceedings of the Institution of Mechanical Engineers, Part F: Journal of Rail and Rapid Transit, 2021, 235, 166-178.	2.0	9
64	Wheel flat analogue fault detector verification study under dynamic testing conditions using a scaled bogie test rig. International Journal of Rail Transportation, 2022, 10, 177-194.	2.7	9
65	Longitudinal train dynamics. Vehicle System Dynamics, 2017, 55, 449-449.	3.7	8
66	Feasibility in assessing the dipped rail joint defects through dynamic response of heavy haul locomotive. Journal of Modern Transportation, 2018, 26, 96-106.	2.5	8
67	Research on the compression stability mechanism and its optimisation of coupler with arc surface contact. Vehicle System Dynamics, 2020, 58, 1553-1574.	3.7	8
68	Ultra-Low Power Sensor Node for On-Board Railway Wagon Monitoring. IEEE Sensors Journal, 2020, 20, 15185-15192.	4.7	8
69	Preload on draft gear in freight trains. Proceedings of the Institution of Mechanical Engineers, Part F: Journal of Rail and Rapid Transit, 2018, 232, 1615-1624.	2.0	7
70	Determining the critical speed for hunting of three-piece freight bogies: practice versus simulation approaches. Vehicle System Dynamics, 2022, 60, 3314-3335.	3.7	7
71	On the motion of the structure varying multibody systems with two-dimensional dry friction. Journal of Mechanical Science and Technology, 2005, 19, 927-935.	1.5	6
72	The influence of vehicle system dynamics on rail foot heat transfer. Australian Journal of Mechanical Engineering, 2018, 16, 126-138.	2.1	6

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73	Optimization and Simulation of Dynamic Performance of Productionâ€“Inventory Systems with Multivariable Controls. Mathematics, 2021, 9, 568.	2.2	6
74	A review on design and testing methodologies of modern freight train draft gear system. Railway Engineering Science, 2021, 29, 127-151.	4.4	6
75	Analysis of positioning of wayside charging stations for hybrid locomotive consists in heavy haul train operations. Railway Engineering Science, 2021, 29, 285-298.	4.4	6
76	A signal-based fault detection and classification method for heavy haul wagons. Vehicle System Dynamics, 2017, 55, 1807-1822.	3.7	5
77	WHEELâ€“RAIL WEAR INVESTIGATION ON A HEAVY HAUL BALLOON LOOP TRACK THROUGH SIMULATIONS OF SLOW SPEED WAGON DYNAMICS. Transport, 2018, 33, 843-852.	1.2	5
78	Identify severe track geometry defect combinations for maintenance planning. International Journal of Rail Transportation, 2022, 10, 95-113.	2.7	5
79	Implications of Lateral Coupler Forces for Rail Vehicle Curving Resistance. Journal of Computational and Nonlinear Dynamics, 2021, 16, .	1.2	5
80	Locomotive Adhesion Controlâ€‰+â€‰Rail Friction Field Measurementsâ€‰=â€‰?. Lecture Notes in Mechanical Engineering, 2020, , 433-441.	0.4	5
81	Practical Modelling and Simulation of Polymer Draft Gear Connections. , 2018, , .		4
82	Model to estimate infrastructure damage costs for different train types. Australian Journal of Mechanical Engineering, 2019, 17, 219-231.	2.1	4
83	Assessing wagon pack sizes in longitudinal train dynamics simulations. Australian Journal of Mechanical Engineering, 2020, 18, 277-287.	2.1	4
84	Parallel computing of wheel-rail contact. Proceedings of the Institution of Mechanical Engineers, Part F: Journal of Rail and Rapid Transit, 2020, 234, 1109-1116.	2.0	4
85	Locomotive Studies Utilizing Multibody and Train Dynamics. , 2017, , .		3
86	Rail temperature variation under heavy haul operations. Railway Engineering Science, 0, , 1.	4.4	3
87	Special Issue on work of the Cooperative Research Centre for Rail Innovation, Australia. Proceedings of the Institution of Mechanical Engineers, Part F: Journal of Rail and Rapid Transit, 2013, 227, 405-406.	2.0	2
88	Modelling of traction in railway vehicles. Vehicle System Dynamics, 2015, 53, 603-604.	3.7	2
89	Rail Cleaning Process and its Influence on Locomotive Performance. , 2017, , .		2
90	Challenges and Solutions for Integrating Simulation into a Transportation Device. Lecture Notes in Computer Science, 2018, , 317-330.	1.3	2

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91	Adaptive simulation and integration method for wheel-rail contact problems in locomotive traction studies. Vehicle System Dynamics, 2022, 60, 4206-4225.	3.7	2
92	Hardware-in-the-loop simulations for railway research. Vehicle System Dynamics, 2013, 51, 497-498.	3.7	1
93	Simulated Comparison of Energy Storage Systems for Heavy Haul Locomotives. , 2017, , .		1
94	Characterising stochastic friction in railway draft gear. Vehicle System Dynamics, 0, , 1-13.	3.7	1
95	Preface to special issue on hybrid and hydrogen technologies for railway operations. Railway Engineering Science, 2021, 29, 211.	4.4	1
96	Introduction of Rail Cleaning Effect into Locomotive Traction Study Based on Tribometer Measurements. , 2022, , .		1
97	Heavy Haul Locomotive Traction Performance under the Implications of In-Train Forces. , 2018, , .		0
98	Advanced Co-Simulation Technique for the Study of Heavy Haul Train and Locomotive Dynamics Behavior. , 2018, , .		0
99	Emerging rail vehicle design and simulation in train operational environment. Australian Journal of Mechanical Engineering, 2018, 16, 83-83.	2.1	0
100	Preface to special issue on parallel computing and co-simulation in railway research. International Journal of Rail Transportation, 2020, 8, 109-110.	2.7	0
101	Rail Freight Vehicles. , 2021, , 423-435.		0
102	MODELLING RAIL THERMAL DIFFERENTIALS DUE TO BENDING AND DEFECTS. Transport, 2021, 36, 134-146.	1.2	0
103	Fuzzy Modelling of Wagon Wheel Unloading Due to Longitudinal Impact Forces. , 2005, , .		0
104	Simulation of Track-Locomotive Interactions in the Longitudinal Direction. Lecture Notes in Mechanical Engineering, 2020, , 769-774.	0.4	0