

# Juraj Gerlici

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/9061559/publications.pdf>

Version: 2024-02-01

90  
papers

1,154  
citations

361296

20  
h-index

552653

26  
g-index

90  
all docs

90  
docs citations

90  
times ranked

297  
citing authors

#	ARTICLE	IF	CITATIONS
1	The Effects of Biodiesel on NOx Emissions for Automotive Transport. Communications - Scientific Letters of the University of Zilina, 2022, 24, B59-B66.	0.3	1
2	Development of a Procedure for Determining the Pre-Failure Condition of the Axle Boxes of Railway Rolling Stock. Communications - Scientific Letters of the University of Zilina, 2022, 24, B87-B93.	0.3	0
3	Development of an Innovative Technical Solution to Improve the Efficiency of Rolling Stock Friction Brake Elements Operation. Lecture Notes in Intelligent Transportation and Infrastructure, 2022, , 28-38.	0.3	1
4	Determination of Vertical Accelerations in a Symmetrically Loaded Flat Car with Longitudinal Elastic-Frictional Beams. Symmetry, 2022, 14, 583.	1.1	1
5	Analysis of the Dynamics and Strength of the Symmetrically Loaded Bearing Structure of a Tank Car with Friction Bonds Implemented by Means of Elastic Elements in the Tank Supports. Symmetry, 2022, 14, 727.	1.1	0
6	Research into the Loading of the Tank Car Frame Concept with Filler in the Composite Center Sill. Communications - Scientific Letters of the University of Zilina, 2022, 24, B219-B227.	0.3	0
7	Method for Determining the Degree of Damage to the Stator Windings of an Induction Electric Motor with an Asymmetric Power System. Symmetry, 2022, 14, 1305.	1.1	3
8	Use of Hybrid Photovoltaic Systems with a Storage Battery for the Remote Objects of Railway Transport Infrastructure. Energies, 2022, 15, 4883.	1.6	9
9	Creating mathematical model of the bearing structure dynamic load of the flat wagon from round pipes in the main operational modes. Transportation Research Procedia, 2021, 55, 875-881.	0.8	0
10	Determining the strength indexes of the bearing structure of the flat wagon of articulated type made from round pipes. Transportation Research Procedia, 2021, 55, 869-874.	0.8	0
11	The dependence of the brake disc aerodynamic drag on the rolling stock motion speed. Transportation Research Procedia, 2021, 55, 723-730.	0.8	3
12	Management of power consumption in a photovoltaic system with a storage battery connected to the network with multi-zone electricity pricing to supply the local facility own needs. Electrical Engineering & Electromechanics, 2021, , 36-42.	0.4	10
13	Forming Comfortable Microclimate in the Bus Compartment via Determining the Heat Loss. Communications - Scientific Letters of the University of Zilina, 2021, 23, B150-B157.	0.3	1
14	Imitation Modeling of an Inter-Turn Short Circuit of an Asynchronous Motor Stator Winding for Diagnostics of Auxiliary Electric Drives of Transport Infrastructure. Communications - Scientific Letters of the University of Zilina, 2021, 23, C65-C74.	0.3	4
15	Dynamics and Strength of Circular Tube Open Wagons with Aluminum Foam Filled Center Sills. Materials, 2021, 14, 1915.	1.3	18
16	Analysis of the Loading on an Articulated Flat Wagon of Circular Pipes Loaded with Tank Containers. Applied Sciences (Switzerland), 2021, 11, 5510.	1.3	0
17	Research into the Strength of an Open Wagon with Double Sidewalls Filled with Aluminium Foam. Materials, 2021, 14, 3420.	1.3	27
18	Determination of the Loading of a Flat Rack Container during Operating Modes. Applied Sciences (Switzerland), 2021, 11, 7623.	1.3	6

#	ARTICLE	IF	CITATIONS
19	The Dynamic and Strength Analysis of an Articulated Covered Wagon with the Circular Pipe Design. Symmetry, 2021, 13, 1398.	1.1	0
20	A Study of Improving Running Safety of a Railway Wagon with an Independently Rotating Wheel's Flange. Symmetry, 2021, 13, 1955.	1.1	6
21	Development of a Method for Evaluating the Technical Condition of a Car's Hybrid Powertrain. Symmetry, 2021, 13, 2356.	1.1	4
22	Evaluation of Ride Comfort in a Railway Passenger Car Depending on a Change of Suspension Parameters. Sensors, 2021, 21, 8138.	2.1	14
23	Clarification of Features of the Wheel Movement with a Perspective Constructive Scheme on a Rail. Applied Sciences (Switzerland), 2020, 10, 6758.	1.3	6
24	Determination of the strength of a flat wagon by elastic viscous interaction with tank containers. IOP Conference Series: Materials Science and Engineering, 2020, 776, 012015.	0.3	1
25	Development of a New System for Attaching the Wheels of the Front Axle in the Cross-Country Vehicle. Symmetry, 2020, 12, 1156.	1.1	13
26	Design of a Mechanical Part of an Automated Platform for Oblique Manipulation. Applied Sciences (Switzerland), 2020, 10, 8467.	1.3	25
27	Experimental Determination of the Manson's Coffin Curves for an Original Unconventional Vehicle Frame. Materials, 2020, 13, 4675.	1.3	23
28	Research of the Fatigue Life of Welded Joints of High Strength Steel S960 QL Created Using Laser and Electron Beams. Materials, 2020, 13, 2539.	1.3	32
29	Design of a robotic manipulator for handling products of automotive industry. International Journal of Advanced Robotic Systems, 2020, 17, 172988142090629.	1.3	12
30	Special Aspects of Determining the Dynamic Load of the Tank Container During Its Transportation in an Integrated Train Set by a Railway Ferry. Lecture Notes in Intelligent Transportation and Infrastructure, 2020, , 581-590.	0.3	2
31	Modeling and simulation of a control system of wheels of wheelset. Archives of Transport, 2020, 55, 73-83.	0.4	7
32	Innovative Technical Solutions to Improve the Cooling Efficiency of Friction Brake Elements. Lecture Notes in Intelligent Transportation and Infrastructure, 2020, , 341-349.	0.3	1
33	Innovative solution for experimental research of phenomena resulting from the wheel and rail rolling. Transportation Research Procedia, 2019, 40, 906-911.	0.8	3
34	Wheelset/rail geometric characteristics and contact forces assessment with regard to angle of attack. MATEC Web of Conferences, 2019, 254, 01014.	0.1	10
35	Profiles synthesis through radii variation of arcs profile method. MATEC Web of Conferences, 2019, 254, 01016.	0.1	0
36	Improvement of the bearing structure of the wagon-platform of the articulated type to ensure the reliability of the fixing on the deck of the railway ferry. MATEC Web of Conferences, 2019, 254, 02035.	0.1	2

#	ARTICLE	IF	CITATIONS
37	Peculiarities of the mathematical modelling of dynamic loading on containers in flat wagons transportation. MATEC Web of Conferences, 2019, 254, 02039.	0.1	7
38	Definition of composite profiles for the needs of a dynamic analysis of a rail vehicle. MATEC Web of Conferences, 2019, 254, 03005.	0.1	0
39	Prediction of the rail-wheel contact wear of an innovative bogie by simulation analysis. Transportation Research Procedia, 2019, 40, 855-860.	0.8	10
40	Analysis of the possibility of the use of tough side bearers in the covered wagons design for the light-weight loads transportation. Transportation Research Procedia, 2019, 40, 694-702.	0.8	3
41	Innovative solution for test equipment for the experimental investigation of friction properties of brake components of brake systems. Transportation Research Procedia, 2019, 40, 759-766.	0.8	8
42	Wheelset/rail geometric characteristics and contact forces assessment with regard to wheelset rolling. MATEC Web of Conferences, 2019, 254, 01015.	0.1	8
43	Road train motion stability in BRT system. MATEC Web of Conferences, 2019, 254, 03007.	0.1	7
44	Analysis of a tram car ride when passing point frog and when entering curve by specific rail geometry. MATEC Web of Conferences, 2019, 254, 03004.	0.1	1
45	Determination of the strength of the containers fittings of a flat wagon loaded with containers during shunting. IOP Conference Series: Materials Science and Engineering, 2019, 659, 012056.	0.3	5
46	Features of tank car testing for dangerous cargoes transportation. IOP Conference Series: Materials Science and Engineering, 2019, 659, 012055.	0.3	4
47	Mechatronic system of control position of wheel pairs by railway vehicles in the rail track. AIP Conference Proceedings, 2019, , .	0.3	6
48	Estimation of sand electrification influence on locomotive wheel/ rail adhesion processes. Eksploatacja I Niezawodnosc, 2019, 21, 460-467.	1.1	5
49	Processing and recycling of rubber and oil wastes into hydrocarbon fuel by method of physico-chemical activation. , 2019, , .		2
50	Durability Determination of the Bearing Structure of an Open Freight Wagon Body Made of Round Pipes during its Transportation on the Railway Ferry. Communications - Scientific Letters of the University of Zilina, 2019, 21, 28-34.	0.3	18
51	Determination of Parameters of Asynchronous Electric Machines with Asymmetrical Windings of Electric Locomotives. Communications - Scientific Letters of the University of Zilina, 2019, 21, 24-31.	0.3	14
52	The Improved Hatch Cover Construction for Universal Open Box-type Wagon from the Strength and Durability Point of View. Manufacturing Technology, 2019, 19, 216-221.	0.2	3
53	Study into Improvement of the Hatch Covers of General-Purpose Open Wagons to Provide Strength under Operational Loading Diagrams. Communications - Scientific Letters of the University of Zilina, 2019, 21, 44-49.	0.3	1
54	The assessment of the integration methods for the rail vehicle ride dynamics solution. MATEC Web of Conferences, 2018, 157, 03013.	0.1	11

#	ARTICLE	IF	CITATIONS
55	Car body and bogie connection modification for track curves passability improvement. MATEC Web of Conferences, 2018, 157, 03009.	0.1	10
56	Calculated estimation of railway wheels equivalent conicity influence on critical speed of railway passenger car. MATEC Web of Conferences, 2018, 157, 03006.	0.1	9
57	Research of the strength of the bearing structure of the flat wagon body from round pipes during transportation on the railway ferry. MATEC Web of Conferences, 2018, 235, 00003.	0.1	24
58	The development of diagnostics methodological principles of the railway rolling stock on the basis of the analysis of dynamic vibration processes of the rail. MATEC Web of Conferences, 2018, 157, 03007.	0.1	20
59	Dynamic loading of the tank container on a flat wagon considering fittings displacement relating to the stops. MATEC Web of Conferences, 2018, 234, 05002.	0.1	5
60	Noise and temperature reduction in the contact of tribological elements during braking. MATEC Web of Conferences, 2018, 157, 02010.	0.1	14
61	The stability analysis of two-wheeled vehicle model. MATEC Web of Conferences, 2018, 157, 01007.	0.1	26
62	Y25 freight car bogie models properties analysis by means of computer simulations. MATEC Web of Conferences, 2018, 157, 03014.	0.1	13
63	Innovative wheel tread design aimed to tramcar-track interaction improvement when passing curves of a small radius. MATEC Web of Conferences, 2018, 157, 03010.	0.1	6
64	DETERMINATION OF THE RATIONAL GEOMETRICAL PARAMETERS OF PLATE TYPE ELEMENTS OF MAGNETIC MATRIX OF THE POLYGRADIENT SEPARATOR. Electrical Engineering & Electromechanics, 2018, .	0.4	3
65	Assessment of Innovative Methods of the Rolling Stock Brake System Efficiency Increasing. Manufacturing Technology, 2018, 18, 35-38.	0.2	12
66	New Principle Schemes of Freight Cars Bogies. Manufacturing Technology, 2018, 18, 233-238.	0.2	22
67	Proposal of a Steering Mechanism for Tram Bogie with Three Axle Boxes. Procedia Engineering, 2017, 192, 289-294.	1.2	27
68	Impact of Three Axle Boxes Bogie to the Tram Behavior When Passing Curved Track. Procedia Engineering, 2017, 192, 295-300.	1.2	29
69	INVESTIGATION OF INFLUENCE OF SEPARATOR MAGNETIC SYSTEM CONFIGURATION WITH PERMANENT MAGNETS ON MAGNETIC FIELD DISTRIBUTION IN WORKING AREA. Electrical Engineering & Electromechanics, 2017, .	0.4	9
70	Slipping and Skidding Occurrence Probability Decreasing by Means of the Friction Controlling in the Wheel-Braking Pad and Wheel-Rail Contacts. Manufacturing Technology, 2017, 17, 179-186.	0.2	22
71	Proposal of a Mechanism for Setting Bogie Wheelsets to Radial Position while Riding Along Track Curve. Manufacturing Technology, 2017, 17, 186-192.	0.2	25
72	Impact of Wheelset Steering and Wheel Profile Geometry to the Vehicle Behavior when Passing Curved Track. Manufacturing Technology, 2017, 17, 306-312.	0.2	21

#	ARTICLE	IF	CITATIONS
73	The Innovative Design of Rolling Stock Brake Elements. Communications - Scientific Letters of the University of Zilina, 2017, 19, 23-28.	0.3	13
74	Freight Car Bogie Properties Analysis by Means of Simulation Computations. Manufacturing Technology, 2016, 16, 733-739.	0.2	16
75	Experimental Rigs for Wheel /Rail Contact Research. Manufacturing Technology, 2016, 16, 909-916.	0.2	27
76	Homogenization of Fibers Reinforced Composite Materials for Simulation Analysis. Manufacturing Technology, 2015, 15, 914-920.	0.2	20
77	Development of Test Stand Prototype for Rail Vehicles Brake Components Testing. Communications - Scientific Letters of the University of Zilina, 2014, 16, 27-32.	0.3	17
78	The Test Stand Load Modulus Implementation for the Realistic Railway Operation in the Laboratory Conditions. Manufacturing Technology, 2013, 13, 444-449.	0.2	29
79	The FASTSIM Method Modification to Speed up the Calculation of Tangential Contact Stresses between Wheel and Rail. Manufacturing Technology, 2013, 13, 486-492.	0.2	24
80	Wheel/Rail Contact Stress Evaluation by Means of The modified Strip Method. Communications - Scientific Letters of the University of Zilina, 2013, 15, 126-132.	0.3	23
81	Railway wheel and rail head profiles development based on the geometric characteristics shapes. Wear, 2011, 271, 246-258.	1.5	55
82	Contact geometry influence on the rail/wheel surface stress distribution. Procedia Engineering, 2010, 2, 2249-2257.	1.2	41
83	Iterative Method for Railway Wheel Profile Design. Communications - Scientific Letters of the University of Zilina, 2009, 11, 49-56.	0.3	10
84	Contact Area and Normal Stress Determination on Railway Wheel/Rail Contact. Communications - Scientific Letters of the University of Zilina, 2005, 7, 38-45.	0.3	24
85	Rail Vehicles Brake Components Test Bench Utilisation. Applied Mechanics and Materials, 0, 486, 379-386.	0.2	40
86	Modified HHT Method for Vehicle Vibration Analysis in Time Domain Utilisation. Applied Mechanics and Materials, 0, 486, 396-405.	0.2	37
87	A Modified Strip Method to Speed up the Tangential Stress between Wheel and Rail Calculation. Applied Mechanics and Materials, 0, 486, 371-378.	0.2	32
88	A Modified Strip Method to Speed up the Calculation of Normal Stress between Wheel and Rail. Applied Mechanics and Materials, 0, 486, 359-370.	0.2	32
89	Realistic Simulation of Railway Operation on the RAILBCOT Test Stand. Applied Mechanics and Materials, 0, 486, 387-395.	0.2	42
90	Evaluation of the Powertrain Condition Based on the Car Acceleration and Coasting Data. , 0, , .		17