

Wim Desmet

List of Publications by Year in descending order

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docs citations

77
times ranked

912
citing authors

#	ARTICLE	IF	CITATIONS
1	An adaptive direct multisearch method for black-box multi-objective optimization. Optimization and Engineering, 2022, 23, 1411-1437.	2.4	1
2	Exploiting Cyclic Angle-Dependency in a Kalman Filter-Based Torque Estimation on a Mechatronic Drivetrain. Actuators, 2022, 11, 35.	2.3	1
3	Offline adaptation of co-simulation time steps by leveraging past co-simulation runs in multi-level mechatronic systems. Mechanism and Machine Theory, 2022, 171, 104740.	4.5	1
4	Influence of Artificial Soft Tissue on Intra-Operative Vibration Analysis Method for Primary Fixation Monitoring in Cementless Total Hip Arthroplasty. Applied Sciences (Switzerland), 2022, 12, 4027.	2.5	1
5	Sparse Damage Detection with Complex Group Lasso and Adaptive Complex Group Lasso. Sensors, 2022, 22, 2978.	3.8	3
6	Parametric model order reduction for acoustic boundary element method systems through a multiparameter Krylov subspaces recycling strategy. International Journal for Numerical Methods in Engineering, 2022, 123, 5546-5569.	2.8	5
7	Vehicle state and tyre force estimation: demonstrations and guidelines. Vehicle System Dynamics, 2021, 59, 675-702.	3.7	56
8	Deep learning for model order reduction of multibody systems to minimal coordinates. Computer Methods in Applied Mechanics and Engineering, 2021, 373, 113517.	6.6	11
9	Frequency dependent selection of control sensors in multi-channel acoustic control. CEAS Space Journal, 2021, 13, 119-131.	2.3	1
10	Acoustic analysis to monitor implant seating and early detect fractures in cementless THA: An in vivo study. Journal of Orthopaedic Research, 2021, 39, 1164-1173.	2.3	15
11	Generating set search using simplex gradients for bound-constrained black-box optimization. Computational Optimization and Applications, 2021, 79, 35-65.	1.6	2
12	Deep learning of multibody minimal coordinates. Proceedings in Applied Mathematics and Mechanics, 2021, 20, e202000348.	0.2	1
13	Sensor selection for cost-effective virtual torque measurements on a wind turbine gearbox. Forschung Im Ingenieurwesen/Engineering Research, 2021, 85, 325-334.	1.6	4
14	Deep learning of multibody minimal coordinates for state and input estimation with Kalman filtering. Multibody System Dynamics, 2021, 53, 205-223.	2.7	8
15	A Discrete-Time Extended Kalman Filter Approach Tailored for Multibody Models: State-Input Estimation. Sensors, 2021, 21, 4495.	3.8	9
16	The Effect and Selection of Solution Sequence in Co-Simulation. , 2021, , .		4
17	Angle-dependent sound absorption estimation using a compact microphone array. Journal of the Acoustical Society of America, 2021, 150, 2388-2400.	1.1	3
18	Implications of Nonsub-Wavelength Resonator Spacing on the Sound Transmission Loss Predictions of Locally Resonant Metamaterial Partitions. Journal of Vibration and Acoustics, Transactions of the ASME, 2021, 143, .	1.6	6

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19	Sensor Selection and State Estimation for Unobservable and Non-Linear System Models. <i>Sensors</i> , 2021, 21, 7492.	3.8	5
20	Development of an Instrument to Assess the Stability of Cementless Femoral Implants Using Vibration Analysis During Total Hip Arthroplasty. <i>IEEE Journal of Translational Engineering in Health and Medicine</i> , 2021, 9, 1-10.	3.7	5
21	Two Different Methods to Measure the Stability of Acetabular Implants: A Comparison Using Artificial Acetabular Models. <i>Sensors</i> , 2020, 20, 254.	3.8	2
22	The Use of a Vibro-Acoustic Based Method to Determine the Composite Material Properties of a Replicate Clavicle Bone Model. <i>Journal of Functional Biomaterials</i> , 2020, 11, 69.	4.4	3
23	State and Force Estimation on a Rotating Helicopter Blade through a Kalman-Based Approach. <i>Sensors</i> , 2020, 20, 4196.	3.8	3
24	On the robustness of a model-based inverse force identification applied on a structure submerged in different media. <i>Journal of the Brazilian Society of Mechanical Sciences and Engineering</i> , 2020, 42, 1.	1.6	1
25	DESIGN METHODOLOGY FOR ENGINEERING STRUCTURES FEATURING AUTOMATIC DESIGN CONCEPT GENERATION BY CONSTRAINT PROGRAMMING AND OBJECTIVE RANKING BY MULTI-ATTRIBUTE EVALUATION. <i>WIT Transactions on the Built Environment</i> , 2020, , .	0.0	1
26	Vehicle state and tire force estimation: Performance analysis of pre and post sensor additions. , 2020, , .		2
27	Reverberation time and audibility in phased geometrical acoustics using plane or spherical wave reflection coefficients. <i>Journal of the Acoustical Society of America</i> , 2019, 145, 2681-2690.	1.1	4
28	Dynamic Performance of a Squeeze Film Damper with a Cylindrical Roller Bearing under a Large Static Radial Loading Range. <i>Machines</i> , 2019, 7, 14.	2.2	6
29	Multi- ϵ expansion modal reduction: A pragmatic semi- \hat{a} -priori model order reduction approach for nonlinear structural dynamics. <i>International Journal for Numerical Methods in Engineering</i> , 2019, 118, 765-782.	2.8	7
30	Multibody model based estimation of multiple loads and strain field on a vehicle suspension system. <i>Mechanical Systems and Signal Processing</i> , 2019, 123, 1-25.	8.0	46
31	Optimal Magnetic Spring for Compliant Actuation \hat{a} -Validated Torque Density Benchmark. <i>Actuators</i> , 2019, 8, 18.	2.3	15
32	Transversally Asymmetric Stiffness of Laminated Stator Core: A Solution for Noise Mitigation of Electric Machines. <i>IEEE Transactions on Energy Conversion</i> , 2019, 34, 613-619.	5.2	3
33	Distributed Observer and Controller Design for Spatially Interconnected Systems. <i>IEEE Transactions on Control Systems Technology</i> , 2019, 27, 1-13.	5.2	33
34	Broadband Load Torque Estimation in Mechatronic Powertrains Using Nonlinear Kalman Filtering. <i>IEEE Transactions on Industrial Electronics</i> , 2018, 65, 2378-2387.	7.9	33
35	On redundancy resolution and energy consumption of kinematically redundant planar parallel manipulators. <i>Robotica</i> , 2018, 36, 809-821.	1.9	33
36	B \hat{a} zier tilings of the sphere and their applications in benchmarking multipatch isogeometric methods. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2018, 332, 255-279.	6.6	4

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37	Adaptive model reduction technique for large-scale dynamical systems with frequency-dependent damping. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2018, 332, 363-381.	6.6	37
38	Semi-analytic contact technique in a non-linear parametric model order reduction method for gear simulations. <i>Meccanica</i> , 2018, 53, 49-75.	2.0	29
39	Isogeometric collocation for Kirchhoff's Love plates and shells. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2018, 329, 396-420.	6.6	33
40	Modal frequency and shape curvature as a measure of implant fixation: A computer study on the acetabular cup. <i>Medical Engineering and Physics</i> , 2018, 60, 30-38.	1.7	8
41	A flexible natural coordinates formulation (FNCF) for the efficient simulation of small deformation multibody systems. <i>International Journal for Numerical Methods in Engineering</i> , 2018, 115, 1353-1370.	2.8	14
42	A biomechanical testing system to determine micromotion between hip implant and femur accounting for deformation of the hip implant: Assessment of the influence of rigid body assumptions on micromotions measurements. <i>Clinical Biomechanics</i> , 2017, 42, 70-78.	1.2	7
43	Bloch theorem with revised boundary conditions applied to glide, screw and rotational symmetric structures. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2017, 318, 497-513.	6.6	14
44	A parametric model order reduction technique for poroelastic finite element models. <i>Journal of the Acoustical Society of America</i> , 2017, 142, 2376-2385.	1.1	4
45	Vibration-based fixation assessment of tibial knee implants: A combined in vitro and in silico feasibility study. <i>Medical Engineering and Physics</i> , 2017, 49, 109-120.	1.7	10
46	Development of an acoustic measurement protocol to monitor acetabular implant fixation in cementless total hip Arthroplasty: A preliminary study. <i>Medical Engineering and Physics</i> , 2017, 49, 28-38.	1.7	21
47	Determination of replicate composite bone material properties using modal analysis. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2017, 66, 12-18.	3.1	10
48	Design and Experimental Validation of a Stable Two-Stage Estimator for Automotive Sideslip Angle and Tire Parameters. <i>IEEE Transactions on Vehicular Technology</i> , 2017, 66, 9727-9742.	6.3	45
49	Consensus-based distributed sensor fusion over a network. , 2017, , .		2
50	Interference effects in phased beam tracing using exact half-space solutions. <i>Journal of the Acoustical Society of America</i> , 2016, 140, 4204-4212.	1.1	2
51	A nondestructive method to verify the glenosphere-baseplate assembly in reverse shoulder arthroplasty. <i>Journal of Shoulder and Elbow Surgery</i> , 2016, 25, e156-e165.	2.6	2
52	Hard real-time multibody simulations using ARM-based embedded systems. <i>Multibody System Dynamics</i> , 2016, 37, 127-143.	2.7	12
53	Automated independent coordinates' switching for the solution of stiff DAEs with the linearly implicit Euler method. <i>Multibody System Dynamics</i> , 2016, 36, 67-85.	2.7	15
54	A semi-analytic strategy for the system-level modelling of flexibly supported ball bearings. <i>Meccanica</i> , 2016, 51, 1503-1532.	2.0	7

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55	Large Scale Validation of a Flexible Multibody Wind Turbine Gearbox Model. Journal of Computational and Nonlinear Dynamics, 2015, 10, .	1.2	11
56	Modelling Techniques for Vibro-Acoustic Dynamics of Poroelastic Materials. Archives of Computational Methods in Engineering, 2015, 22, 183-236.	10.2	18
57	Online state and input force estimation for multibody models employing extended Kalman filtering. Multibody System Dynamics, 2014, 32, 317-336.	2.7	36
58	Super-element global modal parameterization for efficient inclusion of highly nonlinear components in multibody simulation. Multibody System Dynamics, 2014, 31, 3-25.	2.7	12
59	On the acoustic radiation efficiency of local resonance based stop band materials. Journal of Sound and Vibration, 2014, 333, 3203-3213.	3.9	65
60	The design of Helmholtz resonator based acoustic lenses by using the symmetric Multi-Level Wave Based Method and genetic algorithms. Journal of Sound and Vibration, 2014, 333, 3367-3381.	3.9	9
61	Indirect acoustic impedance reduction in presence of flow based on an analytical two-port formulation. Mechanical Systems and Signal Processing, 2014, 48, 388-403.	8.0	5
62	Frictional power loss in solidâ€ greaseâ€ lubricated needle roller bearing. Lubrication Science, 2013, 25, 351-367.	2.1	13
63	On the applicability of static modes switching in gear contact applications. Multibody System Dynamics, 2013, 30, 209-219.	2.7	8
64	Assessment of excitation mechanisms and structural flexibility influence in excitation propagation in multi-megawatt wind turbine gearboxes: Experiments and flexible multibody model optimization. Mechanical Systems and Signal Processing, 2013, 40, 114-135.	8.0	23
65	Mathematical Model and Experimental Evaluation of Drag Torque in Disengaged Wet Clutches. ISRN Tribology, 2013, 2013, 1-16.	0.4	35
66	Real-time flexible multibody simulation with Global Modal Parameterization. Multibody System Dynamics, 2012, 27, 267-284.	2.7	31
67	TRANSMITTED POWER AND ENERGY FLOW BEHAVIOR OF DEGRADING WET FRICTION CLUTCHES. International Journal of Applied Research in Mechanical Engineering, 2012, , 286-291.	0.1	1
68	Uncertainty assessment in random field representations: An interval approach. , 2011, , .		3
69	A systemâ€ level model reduction technique for the efficient simulation of flexible multibody systems. International Journal for Numerical Methods in Engineering, 2011, 85, 330-354.	2.8	18
70	Static modes switching for more efficient flexible multibody simulation. International Journal for Numerical Methods in Engineering, 2011, 87, 1025-1045.	2.8	12
71	A system engineering approach for the design optimization of a hydraulic active suspension. , 2009, , .		3
72	Design of Mechatronic Systems With Configuration-Dependent Dynamics: Simulation and Optimization. IEEE/ASME Transactions on Mechatronics, 2008, 13, 638-646.	5.8	25

#	ARTICLE	IF	CITATIONS
73	Experimental Validation of Input Torque Balancing Applied to Weaving Machinery. Journal of Mechanical Design, Transactions of the ASME, 2008, 130, .	2.9	9
74	Design of mechatronic systems with configuration-dependent dynamics: Simulation and optimization. , 2007, , .		2
75	Magnetic springs: fast energy storage for reciprocating industrial drivetrains. , 0, , .		2
76	An Adaptive Order Finite Element Method for poroelastic materials described through the Biot equations. International Journal for Numerical Methods in Engineering, 0, , .	2.8	1