List of Publications by Year in descending order

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#	Article	IF	CITATIONS
1	Rail Steel Health Analysis Based on a Novel Genetic Density-based Clustering Technique and Manifold Representation of Acoustic Emission Signals. Applied Artificial Intelligence, 2022, 36, .	2.0	2
2	Reduced-order kinetic Monte Carlo model to simulate water diffusion in biodegradable polymers. Computational Materials Science, 2022, 203, 111141.	1.4	1
3	A Stochastic Reduced-Order Model for Statistical Microstructure Descriptors Evolution. Journal of Computing and Information Science in Engineering, 2022, 22, .	1.7	3
4	Structural optimization of metamaterials based on periodic surface modeling. Computer Methods in Applied Mechanics and Engineering, 2022, 395, 115057.	3.4	4
5	A multi-fidelity Bayesian optimization approach based on the expected further improvement. Structural and Multidisciplinary Optimization, 2021, 63, 1709-1719.	1.7	11
6	A physics-constrained dictionary learning approach for compression of vibration signals. Mechanical Systems and Signal Processing, 2021, 153, 107434.	4.4	13
7	Design of Trustworthy Cyber–Physical–Social Systems With Discrete Bayesian Optimization. Journal of Mechanical Design, Transactions of the ASME, 2021, 143, .	1.7	4
8	Physics-Based Compressive Sensing to Enable Digital Twins of Additive Manufacturing Processes. Journal of Computing and Information Science in Engineering, 2021, 21, .	1.7	11
9	A Dual-Dimer method for training physics-constrained neural networks with minimax architecture. Neural Networks, 2021, 136, 112-125.	3.3	33
10	A Multiscale Adhesion Model for Deposition Prediction in Laser Enhanced Nanoparticle Deposition Process. Acta Materialia, 2021, 208, 116740.	3.8	1
11	Topology-informed information dynamics modeling in cyber–physical–social system networks. Artificial Intelligence for Engineering Design, Analysis and Manufacturing: AIEDAM, 2021, 35, 316-331.	0.7	1
12	Probabilistic Modeling of Information Dynamics in Networked Cyber–Physical–Social Systems. IEEE Internet of Things Journal, 2021, 8, 14934-14947.	5.5	4
13	Physics based compressive sensing to monitor temperature and melt flow in laser powder bed fusion. Additive Manufacturing, 2021, 47, 102304.	1.7	0
14	Machine Fault Diagnosis of Fused Filament Fabrication Process with Physics-Constrained Dictionary Learning. Procedia Manufacturing, 2021, 53, 726-734.	1.9	5
15	A Robust Control Scheme for Time Delay Switch Attacks. , 2021, , .		0
16	Data-Driven Fault Diagnosis Method Based on Compressed Sensing and Improved Multiscale Network. IEEE Transactions on Industrial Electronics, 2020, 67, 3216-3225.	5.2	132
17	Hidden Markov model-based autonomous manufacturing task orchestration in smart shop floors. Robotics and Computer-Integrated Manufacturing, 2020, 61, 101845.	6.1	38
18	Computational Optimization Study of Transcatheter Aortic Valve Leaflet Design Using Porcine and Bovine Leaflets. Journal of Biomechanical Engineering, 2020, 142, .	0.6	21

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19	Coarse-Grained Force Field Calibration Based on Multiobjective Bayesian Optimization to Simulate Water Diffusion in Poly-ε-caprolactone. Journal of Physical Chemistry A, 2020, 124, 5042-5052.	1.1	10
20	Physics-Based Compressive Sensing Approach to Monitor Turbulent Flow. AIAA Journal, 2020, 58, 3299-3307.	1.5	4
21	Direct printing of performance tunable strain sensor via nanoparticle laser patterning process. Virtual and Physical Prototyping, 2020, 15, 265-277.	5.3	12
22	Uncertainty quantification in materials modeling. , 2020, , 1-40.		7
23	Sensitivity analysis in kinetic Monte Carlo simulation based on random set sampling. , 2020, , 273-299.		0
24	Data-driven acceleration of first-principles saddle point and local minimum search based on scalable Gaussian processes. , 2020, , 119-168.		0
25	Reliable molecular dynamics simulations for intrusive uncertainty quantification using generalized interval analysis. , 2020, , 229-271.		0
26	Hierarchical multiscale model calibration and validation for materials applications. , 2020, , 449-471.		4
27	Uncertainty propagation in reduced order models based on crystal plasticity. Computer Methods in Applied Mechanics and Engineering, 2020, 365, 113009.	3.4	13
28	Quantifying Trust Perception to Enable Design for Connectivity in Cyber-Physical-Social Systems. , 2020, , 85-113.		3
29	A New Multi-Objective Bayesian Optimization Formulation With the Acquisition Function for Convergence and Diversity. Journal of Mechanical Design, Transactions of the ASME, 2020, 142, .	1.7	29
30	Multiphysics Simulation of Nucleation and Grain Growth in Selective Laser Melting of Alloys. Journal of Computing and Information Science in Engineering, 2020, 20, .	1.7	6
31	Multi-physics simulation of dendritic growth in magnetic field assisted solidification. International Journal of Heat and Mass Transfer, 2019, 144, 118673.	2.5	25
32	WearGP: A computationally efficient machine learning framework for local erosive wear predictions via nodal Gaussian processes. Wear, 2019, 422-423, 9-26.	1.5	34
33	Model-Form and Parameter Uncertainty Quantification in Structural Vibration Simulation Using Fractional Derivatives. Journal of Computational and Nonlinear Dynamics, 2019, 14, .	0.7	0
34	Hierarchical top-down bottom-up calibration with consideration for uncertainty and inter-scale discrepancy of Peierls stress of bcc Fe. Modelling and Simulation in Materials Science and Engineering, 2019, 27, 064004.	0.8	4
35	Gaussian-Process-Driven Adaptive Sampling for Reduced-Order Modeling of Texture Effects in Polycrystalline Alpha-Ti. Jom, 2019, 71, 2646-2656.	0.9	15
36	Quantifying uncertainty in the process-structure relationship for Al–Cu solidification. Modelling and Simulation in Materials Science and Engineering, 2019, 27, 064005.	0.8	14

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37	An atomistic simulation study of nanoscale sintering: The role of grain boundary misorientation. Computational Materials Science, 2019, 165, 180-189.	1.4	16
38	An efficient transient temperature monitoring of fused filament fabrication process with physics-based compressive sensing. IISE Transactions, 2019, 51, 168-180.	1.6	12
39	A Bayesian Discrete Optimization Algorithm for Permutation Based Combinatorial Problems. , 2019, , .		2
40	Experimental study of the process failure diagnosis in additive manufacturing based on acoustic emission. Measurement: Journal of the International Measurement Confederation, 2019, 136, 445-453.	2.5	56
41	Constrained mixed-integer Gaussian mixture Bayesian optimization and its applications in designing fractal and auxetic metamaterials. Structural and Multidisciplinary Optimization, 2019, 59, 2131-2154.	1.7	34
42	pBO-2GP-3B: A batch parallel known/unknown constrained Bayesian optimization with feasibility classification and its applications in computational fluid dynamics. Computer Methods in Applied Mechanics and Engineering, 2019, 347, 827-852.	3.4	47
43	Mesoscale multi-physics simulation of rapid solidification of Ti-6Al-4V alloy. Additive Manufacturing, 2019, 25, 551-562.	1.7	33
44	Multi-Fidelity Physics-Constrained Neural Network and Its Application in Materials Modeling. Journal of Mechanical Design, Transactions of the ASME, 2019, 141, .	1.7	88
45	Trust Quantification for Networked Cyber-Physical Systems. IEEE Internet of Things Journal, 2018, 5, 2055-2070.	5.5	26
46	An interval-based approach to model input uncertainty in M/M/1 simulation. International Journal of Approximate Reasoning, 2018, 95, 46-61.	1.9	3
47	An integrated multi-sensor fusion-based deep feature learning approach for rotating machinery diagnosis. Measurement Science and Technology, 2018, 29, 055103.	1.4	86
48	Resilience Quantification for Probabilistic Design of Cyber-Physical System Networks. ASCE-ASME Journal of Risk and Uncertainty in Engineering Systems, Part B: Mechanical Engineering, 2018, 4, .	0.7	11
49	Robust optimization for reducing welding-induced angular distortion in fiber laser keyhole welding under process parameter uncertainty. Applied Thermal Engineering, 2018, 129, 893-906.	3.0	25
50	A robust optimization approach based on multi-fidelity metamodel. Structural and Multidisciplinary Optimization, 2018, 57, 775-797.	1.7	51
51	Special Issue on Uncertainty Quantification in Multiscale System Design and Simulation. ASCE-ASME Journal of Risk and Uncertainty in Engineering Systems, Part B: Mechanical Engineering, 2018, 4, .	0.7	4
52	An Efficient First-Principles Saddle Point Searching Method Based on Distributed Kriging Metamodels. ASCE-ASME Journal of Risk and Uncertainty in Engineering Systems, Part B: Mechanical Engineering, 2018, 4, .	0.7	14
53	Controlled kinetic Monte Carlo simulation of laser improved nano particle deposition process. Powder Technology, 2018, 325, 651-658.	2.1	7
54	Data-driven cost estimation for additive manufacturing in cybermanufacturing. Journal of Manufacturing Systems, 2018, 46, 115-126.	7.6	102

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55	Trust Based Cyber-Physical Systems Network Design. , 2018, , .		1
56	An improved fault diagnosis approach for FDM process with acoustic emission. Journal of Manufacturing Processes, 2018, 35, 570-579.	2.8	73
57	Monitoring temperature in additive manufacturing with physics-based compressive sensing. Journal of Manufacturing Systems, 2018, 48, 60-70.	7.6	31
58	Shape Descriptor-Based Local Contour Profile Registration and Measurement for Flexible Automotive Sealing Strips. Journal of Computing and Information Science in Engineering, 2018, 18, .	1.7	0
59	A Multiscale Materials Modeling Method With Seamless Zooming Capability Based on Surfacelets1. Journal of Computing and Information Science in Engineering, 2017, 17, .	1.7	4
60	An integrated condition-monitoring method for a milling process using reduced decomposition features. Measurement Science and Technology, 2017, 28, 085101.	1.4	12
61	Modeling of gas diffusion layers with curved fibers using a genetic algorithm. International Journal of Hydrogen Energy, 2017, 42, 23130-23140.	3.8	13
62	On Social Value of Risk Information in Risk Communication. ASCE-ASME Journal of Risk and Uncertainty in Engineering Systems, Part B: Mechanical Engineering, 2017, 3, .	0.7	1
63	A sequential multi-fidelity metamodeling approach for data regression. Knowledge-Based Systems, 2017, 134, 199-212.	4.0	79
64	Mesoscale Multi-Physics Simulation of Solidification in Selective Laser Melting Process Using a Phase Field and Thermal Lattice Boltzmann Model. , 2017, , .		7
65	Manufacturing Energy Consumption Estimation Using Machine Learning Approach. , 2017, , .		0
66	A remote health condition monitoring system based on compressed sensing. , 2017, , .		1
67	Reliable Molecular Dynamics: Uncertainty quantification using interval analysis in molecular dynamics simulation. Computational Materials Science, 2017, 127, 141-160.	1.4	17
68	Real-time FDM machine condition monitoring and diagnosis based on acoustic emission and hidden semi-Markov model. International Journal of Advanced Manufacturing Technology, 2017, 90, 2027-2036.	1.5	104
69	A specific structuring element-based opening method for rapid geometry measurement of weld pool. International Journal of Advanced Manufacturing Technology, 2017, 90, 1465-1477.	1.5	3
70	A Hybrid Generalized Hidden Markov Model-Based Condition Monitoring Approach for Rolling Bearings. Sensors, 2017, 17, 1143.	2.1	23
71	An active learning radial basis function modeling method based on self-organization maps for simulation-based design problems. Knowledge-Based Systems, 2017, 131, 10-27.	4.0	41
72	RECONCILED TOP-DOWN AND BOTTOM-UP HIERARCHICAL MULTISCALE CALIBRATION OF BCC FE CRYSTAL PLASTICITY. International Journal for Multiscale Computational Engineering, 2017, 15, 505-523.	0.8	12

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73	In situ monitoring of FDM machine condition via acoustic emission. International Journal of Advanced Manufacturing Technology, 2016, 84, 1483.	1.5	59
74	System Resilience Quantification for Probabilistic Design of Internet-of-Things Architecture. , 2016, , .		8
75	Model-Form Calibration in Drift-Diffusion Simulation Using Fractional Derivatives. ASCE-ASME Journal of Risk and Uncertainty in Engineering Systems, Part B: Mechanical Engineering, 2016, 2, .	0.7	3
76	Material feature representation and identification with composite surfacelets. Journal of Computational Design and Engineering, 2016, 3, 370-384.	1.5	6
77	A generalized hidden Markov model and its applications in recognition of cutting states. International Journal of Precision Engineering and Manufacturing, 2016, 17, 1471-1482.	1.1	7
78	Molecular Dynamics Simulation With Interval-Valued Interatomic Potentials. , 2016, , .		1
79	Controlled Kinetic Monte Carlo Simulation for Computer-Aided Nanomanufacturing. Journal of Micro and Nano-Manufacturing, 2016, 4, .	0.8	2
80	Generalized Galileo Galilei problem in interval setting for functionally related loads. Archive of Applied Mechanics, 2016, 86, 1203-1217.	1.2	10
81	Quantifying Model-Form Uncertainty in Molecular Dynamics Simulation. , 2016, , 283-292.		1
82	Risk-Informed Decision Framework for Built Environment: The Incorporation of Epistemic Uncertainty. , 2016, , 279-296.		0
83	An Extended Kalman Filtering Mechanism Based on Generalized Interval Probability. ASCE-ASME Journal of Risk and Uncertainty in Engineering Systems, Part B: Mechanical Engineering, 2015, 1, .	0.7	0
84	Geometric Descriptor-Based Local Contour Point Set Matching for Cross-Section Profile Measurement of Automotive Sealing Strips. , 2015, , .		1
85	Quantification of Model-Form Uncertainty in Drift-Diffusion Simulation Using Fractional Derivatives. , 2015, , .		0
86	Low-carbon conceptual design based on product life cycle assessment. International Journal of Advanced Manufacturing Technology, 2015, 81, 863-874.	1.5	31
87	Low-carbon product design for product life cycle. Journal of Engineering Design, 2015, 26, 321-339.	1.1	46
88	Stochastic dynamics simulation with generalized interval probability. International Journal of Computer Mathematics, 2015, 92, 623-642.	1.0	5
89	Generalized periodic surface model and its application in designing fibrous porous media. Engineering Computations, 2015, 32, 7-36.	0.7	11
90	Sensitivity Analysis in Quantified Interval Constraint Satisfaction Problems. Journal of Mechanical Design, Transactions of the ASME, 2015, 137, .	1.7	4

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91	A Curve Swarm Algorithm for Global Search of State Transition Paths. , 2015, , 139-146.		1
92	An Efficient Saddle Point Search Method Using Kriging Metamodels. , 2015, , .		1
93	A Multi-Scale Materials Modeling Method With Seamless Zooming Capability Based on Surfacelets. , 2014, , .		0
94	A generalized interval probability-based optimization method for training generalized hidden Markov model. Signal Processing, 2014, 94, 319-329.	2.1	10
95	Modeling of composite fibrous porous diffusion media. International Journal of Hydrogen Energy, 2014, 39, 9375-9386.	3.8	23
96	A Kalman Filtering Mechanism Based on Generalized Interval Probability and its Application in Process Variation Estimation. , 2014, , .		0
97	Searching Feasible Design Space by Solving Quantified Constraint Satisfaction Problems. Journal of Mechanical Design, Transactions of the ASME, 2014, 136, .	1.7	9
98	Inverse Surfacelet Transform for Image Reconstruction With Constrained-Conjugate Gradient Methods. Journal of Computing and Information Science in Engineering, 2014, 14, .	1.7	4
99	Training Generalized Hidden Markov Model with Interval Probability Parameters. , 2014, , .		1
100	A semi-automatic mold cost estimation framework based upon geometry similarity. International Journal of Advanced Manufacturing Technology, 2013, 68, 1387-1399.	1.5	5
101	Reliable kinetic Monte Carlo simulation based on random set sampling. Soft Computing, 2013, 17, 1439-1451.	2.1	7
102	A generalized Markov chain model based on generalized interval probability. Science China Technological Sciences, 2013, 56, 2132-2136.	2.0	6
103	Ontology-based feature mapping and verification between CAD systems. Advanced Engineering Informatics, 2013, 27, 76-92.	4.0	40
104	Generalized Fokker–Planck equation with generalized interval probability. Mechanical Systems and Signal Processing, 2013, 37, 92-104.	4.4	10
105	A method for reverse engineering of material microstructure for heterogeneous CAD. CAD Computer Aided Design, 2013, 45, 1068-1078.	1.4	12
106	Geometry guided crystal phase transition pathway search. CAD Computer Aided Design, 2013, 45, 53-64.	1.4	2
107	An Uncertainty Quantification Method Based on Generalized Interval. , 2013, , .		3
108	A Comparison of Surfacelet-Based Methods for Recognizing Linear Geometric Features in Material Microstructure. , 2013, , .		2

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109	Sensitivity Analysis in Quantified Interval Constraint Satisfaction Problems. , 2013, , .		Ο
110	e-Design systems. Industrial Innovation Series, 2013, , 399-428.	0.2	1
111	Clustered Cell Parallelization for GPU Computing of Silicon Anisotropic Etching Simulation. , 2013, , .		0
112	Solving Interval Master Equation in Simulation of Jump Processes Under Uncertainties. , 2013, , .		0
113	Simulating Stochastic Diffusions by Quantum Walks. , 2013, , .		3
114	A Concurrent Search Algorithm for Multiple Phase Transition Pathways. , 2013, , .		3
115	Cross-Scale, Cross-Domain Model Validation Based on Generalized Hidden Markov Model and Generalized Interval Bayes' Rule. , 2013, , 149-154.		0
116	Inverse Surfacelet Transform for Image Reconstruction With Prior Knowledge. , 2013, , .		0
117	Feasibility of periodic surface models to develop gas diffusion layers: A gas permeability study. International Journal of Hydrogen Energy, 2012, 37, 14427-14438.	3.8	27
118	GPU-Based Parallel Simulation of Silicon Anisotropic Etching. , 2012, , .		0
119	Simulating Drift-Diffusion Processes With Generalized Interval Probability. , 2012, , .		0
120	SUSTAINABLE DESIGN OF MATERIAL HANDLING EQUIPMENT: A WIN-WIN APPROACH FOR MANUFACTURERS AND CUSTOMERS. Mechanika, 2012, 18, .	0.3	14
121	Transport Phenomena in Carbon Paper Gas Diffusion Layers. ECS Transactions, 2011, 41, 499-512.	0.3	6
122	Independence in Generalized Interval Probability. , 2011, , .		2
123	Multiscale Uncertainty Quantification Based on a Generalized Hidden Markov Model. Journal of Mechanical Design, Transactions of the ASME, 2011, 133, .	1.7	14
124	Loci Surface Guided Crystal Phase Transition Pathway Search. , 2011, , .		1
125	Ontology-Based Representation and Verification to Enable Feature Interoperability Between CAD Systems. , 2011, , .		2
126	A Hierarchical, Heterogeneous CAD Modeling Approach. , 2011, , .		0

A Hierarchical, Heterogeneous CAD Modeling Approach. , 2011, , . 126

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127	Reliable Kinetic Monte Carlo Simulation Based on Random Set Sampling. , 2011, , .		1
128	3D Fractals From Periodic Surfaces. , 2010, , .		3
129	Imprecise probabilities based on generalised intervals for system reliability assessment. International Journal of Reliability and Safety, 2010, 4, 319.	0.2	40
130	An Interval-Based Metamodeling Approach to Simulate Material Handling in Semiconductor Wafer Fabs. IEEE Transactions on Semiconductor Manufacturing, 2010, 23, 527-537.	1.4	7
131	Multiscale Heterogeneous Modeling with Surfacelets. Computer-Aided Design and Applications, 2010, 7, 759-776.	0.4	17
132	Multiscale Variability and Uncertainty Quantification Based on a Generalized Multiscale Markov Model. , 2010, , .		0
133	Metamorphosis of Periodic Surface Models. , 2009, , .		1
134	Feature-based crystal construction in computer-aided nano-design. CAD Computer Aided Design, 2009, 41, 792-800.	1.4	13
135	Computing Minkowski Sum of Periodic Surface Models. Computer-Aided Design and Applications, 2009, 6, 825-837.	0.4	4
136	Analyzing and Implementing a Feature Mapping Approach to CAD System Interoperability. , 2009, , .		2
137	Minkowski Sums of Periodic Surface Models. , 2009, , .		0
138	Interpretable Interval Constraint Solvers in Semantic Tolerance Analysis. Computer-Aided Design and Applications, 2008, 5, 654-666.	0.4	9
139	Degree Elevation and Reduction of Periodic Surfaces. Computer-Aided Design and Applications, 2008, 5, 841-854.	0.4	10
140	A Review of Recent Phase Transition Simulation Methods: Transition Path Search. , 2008, , .		7
141	Closed-Loop Analysis in Semantic Tolerance Modeling. Journal of Mechanical Design, Transactions of the ASME, 2008, 130, .	1.7	10
142	Semantic Tolerance Modeling With Generalized Intervals. Journal of Mechanical Design, Transactions of the ASME, 2008, 130, .	1.7	20
143	Reliable simulation with input uncertainties using an interval-based approach. , 2008, , .		14

¹⁴⁴ Feature Mapping Automation for CAD Data Exchange. , 2008, , .

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145	Feature-Based Crystal Construction in Computer-Aided Nano-Design. , 2008, , .		1
146	A Review of Recent Phase Transition Simulation Methods: Saddle Point Search. , 2008, , .		8
147	Algebraic interval constraint driven exploration in human-agent collaborative problem solving. , 2007, , .		0
148	Loci Periodic Surface Reconstruction from Crystals. Computer-Aided Design and Applications, 2007, 4, 437-447.	0.4	10
149	Semantic Tolerancing with Generalized Intervals. Computer-Aided Design and Applications, 2007, 4, 257-266.	0.4	7
150	Periodic surface modeling for computer aided nano design. CAD Computer Aided Design, 2007, 39, 179-189.	1.4	95
151	Solving Interval Constraints by Linearization in Computer-Aided Design. Reliable Computing, 2007, 13, 211-244.	0.8	8
152	Degree Operations on Periodic Surfaces. , 2007, , .		1
153	Document-Driven Design for Distributed CAD Services. , 2007, , 371-397.		0
154	Intellectual Property Protection in Collaborative Design through Lean Information Modeling and Sharing. Journal of Computing and Information Science in Engineering, 2006, 6, 149.	1.7	33
155	Document-Driven Design for Distributed CAD Services in Service-Oriented Architecture. Journal of Computing and Information Science in Engineering, 2006, 6, 127-138.	1.7	23
156	Semantic Tolerance Modeling. , 2006, , 261.		4
157	Geometric Modeling of Nano Structures with Periodic Surfaces. Lecture Notes in Computer Science, 2006, , 343-356.	1.0	4
158	Geometry-based semantic ID for persistent and interoperable reference in feature-based parametric modeling. CAD Computer Aided Design, 2005, 37, 1081-1093.	1.4	27
159	e-Design Systems. Industrial Innovation Series, 2005, , 28-1-28-26.	0.2	3
160	Distributed Data Access Control for Lean Product Information Sharing in Collaborative Design. , 2004, , 961.		1
161	Design formalism for collaborative assembly design. CAD Computer Aided Design, 2004, 36, 849-871.	1.4	70
162	Cost-Effective Product Realization: Service-Oriented Architecture for Integrated Product Life-cycle Management. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2004, 37, 1-12.	0.4	8

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163	Quantifying Model-Form Uncertainty in Molecular Dynamics Simulation. , 0, , 283-292.		1
164	Cross-Scale, Cross-Domain Model Validation Based on Generalized Hidden Markov Model and Generalized Interval Bayes' Rule. , 0, , 149-154.		0
165	A Multiscale Adhesion Model for Deposition Prediction in Laser Enhanced Nanoparticle Deposition Process. SSRN Electronic Journal, 0, , .	0.4	Ο
166	Development of Aluminum Scandium Nitride Molecular Dynamics Force Fields with Scalable Multi-Objective Bayesian Optimization. Jom, 0, , .	0.9	0