

Xiao-Sheng Si

List of Publications by Year in descending order

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141
papers

8,118
citations

126708

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143
all docs

143
docs citations

143
times ranked

4040
citing authors

#	ARTICLE	IF	CITATIONS
1	Bayesian Deep-Learning-Based Prognostic Model for Equipment Without Label Data Related to Lifetime. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2023, 53, 504-517.	5.9	10
2	An Age-Dependent and State-Dependent Adaptive Prognostic Approach for Hidden Nonlinear Degrading System. IEEE/CAA Journal of Automatica Sinica, 2022, 9, 907-921.	8.5	5
3	Nonlinear degradation modeling and prognostics: A Box-Cox transformation perspective. Reliability Engineering and System Safety, 2022, 217, 108120.	5.1	29
4	Data-model interactive prognosis for multi-sensor monitored stochastic degrading devices. Mechanical Systems and Signal Processing, 2022, 167, 108526.	4.4	27
5	Unbiased parameters estimation and mis-specification analysis of Wiener process-based degradation model with random effects. Applied Mathematical Modelling, 2022, 109, 134-160.	2.2	13
6	Online joint replacement-order optimization driven by a nonlinear ensemble remaining useful life prediction method. Mechanical Systems and Signal Processing, 2022, 173, 109053.	4.4	13
7	Balanced Adaptation Regularization Based Transfer Learning for Unsupervised Cross-Domain Fault Diagnosis. IEEE Sensors Journal, 2022, 22, 12139-12151.	2.4	29
8	Prognostics based on the generalized diffusion process with parameters updated by a sequential Bayesian method. Science China Information Sciences, 2022, 65, .	2.7	2
9	A joint order-replacement policy for deteriorating components with reliability constraint. Science China Information Sciences, 2021, 64, 1.	2.7	6
10	Optimal replacement of degrading components: a control-limit policy. Science China Information Sciences, 2021, 64, 1.	2.7	6
11	An adaptive prognostics method for fusing CDBN and diffusion process: Application to bearing data. Neurocomputing, 2021, 421, 303-315.	3.5	23
12	A Bayesian Inference for Remaining Useful Life Estimation by Fusing Accelerated Degradation Data and Condition Monitoring Data. Reliability Engineering and System Safety, 2021, 208, 107341.	5.1	34
13	An Adaptive Prognostic Approach for Partially Observable Degrading Products With Random Shocks. IEEE Sensors Journal, 2021, 21, 17926-17946.	2.4	5
14	Prognostics Based on Stochastic Degradation Process: The Last Exit Time Perspective. IEEE Transactions on Reliability, 2021, 70, 1158-1176.	3.5	19
15	Joint optimization of preventive maintenance and inventory management for standby systems with hybrid-deteriorating spare parts. Reliability Engineering and System Safety, 2021, 214, 107686.	5.1	24
16	Online remaining-useful-life estimation with a Bayesian-updated expectation-conditional-maximization algorithm and a modified Bayesian-model-averaging method. Science China Information Sciences, 2021, 64, 1.	2.7	4
17	A New Missing Data Generation Method Based on An Improved DCGAN With Application to RUL Prediction. , 2021, , .		2
18	Prognostics for Linear Stochastic Degrading Systems With Survival Measurements. IEEE Transactions on Industrial Electronics, 2020, 67, 3202-3215.	5.2	27

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19	A Prognostic Model Based on DBN and Diffusion Process for Degrading Bearing. IEEE Transactions on Industrial Electronics, 2020, 67, 8767-8777.	5.2	94
20	Remaining Useful Life Prediction With Fusing Failure Time Data and Field Degradation Data With Random Effects. IEEE Access, 2020, 8, 11964-11978.	2.6	9
21	A rotating machinery fault diagnosis method based on multi-scale dimensionless indicators and random forests. Mechanical Systems and Signal Processing, 2020, 139, 106609.	4.4	109
22	A Novel Degradation Modeling and Prognostic Framework for Closed-Loop Systems With Degrading Actuator. IEEE Transactions on Industrial Electronics, 2020, 67, 9635-9647.	5.2	28
23	A New Condition-Based Maintenance Decision Model for Degraded Equipment Subjected to Random Shocks. , 2020, , .		2
24	Remaining Useful Life Prediction Under Imperfect Prior Degradation Information. IEEE Access, 2020, 8, 189262-189275.	2.6	10
25	Joint maintenance and spare parts inventory optimization for multi-unit systems considering imperfect maintenance actions. Reliability Engineering and System Safety, 2020, 202, 106994.	5.1	37
26	A novel iterative approach of lifetime estimation for standby systems with deteriorating spare parts. Reliability Engineering and System Safety, 2020, 201, 106960.	5.1	10
27	Fault Diagnosis Based on Multi-Scale Redefined Dimensionless Indicators and Density Peak Clustering With Geodesic Distances. IEEE Access, 2020, 8, 84777-84791.	2.6	7
28	Remaining Useful Life Prediction Based on an Adaptive Inverse Gaussian Degradation Process With Measurement Errors. IEEE Access, 2020, 8, 3498-3510.	2.6	13
29	Intelligent Fault Diagnosis Approach Based on Composite Multi-Scale Dimensionless Indicators and Affinity Propagation Clustering. IEEE Sensors Journal, 2020, 20, 11439-11453.	2.4	16
30	Machinery Fault Diagnosis Scheme Using Redefined Dimensionless Indicators and mRMR Feature Selection. IEEE Access, 2020, 8, 40313-40326.	2.6	35
31	A Sequential Bayesian Updated Wiener Process Model for Remaining Useful Life Prediction. IEEE Access, 2020, 8, 5471-5480.	2.6	24
32	NHPP Testability Growth Model Considering Testability Growth Effort, Rectifying Delay, and Imperfect Correction. IEEE Access, 2020, 8, 9072-9083.	2.6	7
33	Averaged Bi-LSTM networks for RUL prognostics with non-life-cycle labeled dataset. Neurocomputing, 2020, 402, 134-147.	3.5	51
34	A Novel Lifetime Estimation Method for Two-Phase Degrading Systems. IEEE Transactions on Reliability, 2019, 68, 689-709.	3.5	67
35	An Adaptive Prognostic Approach Incorporating Inspection Influence for Deteriorating Systems. IEEE Transactions on Reliability, 2019, 68, 302-316.	3.5	16
36	Nonlinear Step-Stress Accelerated Degradation Modeling and Remaining Useful Life Estimation Considering Multiple Sources of Variability. IEEE Access, 2019, 7, 124558-124575.	2.6	7

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37	Modified Bayesian D-Optimality for Accelerated Degradation Test Design With Model Uncertainty. IEEE Access, 2019, 7, 42181-42189.	2.6	4
38	An Adaptive Remaining Useful Life Estimation Approach for Newly Developed System Based on Nonlinear Degradation Model. IEEE Access, 2019, 7, 82162-82173.	2.6	21
39	State-of-Health Estimation for Lithium-Ion Batteries Based on Wiener Process With Modeling the Relaxation Effect. IEEE Access, 2019, 7, 105186-105201.	2.6	45
40	An Adaptive Prognostic Approach for Newly Developed System With Three-Source Variability. IEEE Access, 2019, 7, 53091-53102.	2.6	13
41	A Review of Recurrent Neural Networks: LSTM Cells and Network Architectures. Neural Computation, 2019, 31, 1235-1270.	1.3	1,983
42	A General Stochastic Degradation Modeling Approach for Prognostics of Degrading Systems With Surviving and Uncertain Measurements. IEEE Transactions on Reliability, 2019, 68, 1080-1100.	3.5	29
43	Remaining Useful Life Prediction of Lithium-Ion Batteries Based on Wiener Processes with Considering the Relaxation Effect. Energies, 2019, 12, 1685.	1.6	38
44	Lifetime Estimation for Multi-Phase Deteriorating Process with Random Abrupt Jumps. Sensors, 2019, 19, 1472.	2.1	12
45	Remaining useful life prediction of machinery under time-varying operating conditions based on a two-factor state-space model. Reliability Engineering and System Safety, 2019, 186, 88-100.	5.1	67
46	A Note on Parameters Estimation for Nonlinear Wiener Processes With Measurement Errors. IEEE Access, 2019, 7, 176756-176766.	2.6	8
47	A Data-Fusion Based Prognostic Method for Complex Degrading System. , 2019, , .		3
48	Remaining Useful Life Prediction for Nonlinear Degraded Equipment With Bivariate Time Scales. IEEE Access, 2019, 7, 165166-165180.	2.6	9
49	Robust Sliding Mode-Based Learning Control for MIMO Nonlinear Nonminimum Phase System in General Form. IEEE Transactions on Cybernetics, 2019, 49, 3793-3805.	6.2	17
50	Degradation data analysis and remaining useful life estimation: A review on Wiener-process-based methods. European Journal of Operational Research, 2018, 271, 775-796.	3.5	394
51	A new remaining useful life estimation method for equipment subjected to intervention of imperfect maintenance activities. Chinese Journal of Aeronautics, 2018, 31, 514-528.	2.8	38
52	Adaptive tracking control of MIMO nonlinear nonminimum phase system with unknown input nonlinearity. International Journal of Robust and Nonlinear Control, 2018, 28, 596-610.	2.1	5
53	Remaining useful life prediction of degrading systems subjected to imperfect maintenance: Application to draught fans. Mechanical Systems and Signal Processing, 2018, 100, 802-813.	4.4	43
54	Life Prediction Approach by Integrating Nonlinear Accelerated Degradation Model and Hazard Rate Model. , 2018, , .		2

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55	Lifetime Prognostics for Multi-Phase Degradation with Random Jump at the Change Point. , 2018, , .		1
56	Specification analysis of the deteriorating sensor for required lifetime prognostic performance. Microelectronics Reliability, 2018, 85, 71-83.	0.9	3
57	Estimating Remaining Useful Life for Degrading Systems with Large Fluctuations. Journal of Control Science and Engineering, 2018, 2018, 1-11.	0.8	1
58	An Optimal Condition-Based Replacement Method for Systems With Observed Degradation Signals. IEEE Transactions on Reliability, 2018, 67, 1281-1293.	3.5	27
59	A multi-stage Wiener process-based prognostic model for equipment considering the influence of imperfect maintenance activities. Journal of Intelligent and Fuzzy Systems, 2018, 34, 3695-3705.	0.8	14
60	An Integrated Reliability Estimation Approach With Stochastic Filtering and Degradation Modeling for Phased-Mission Systems. IEEE Transactions on Cybernetics, 2017, 47, 67-80.	6.2	27
61	Data-Driven Remaining Useful Life Prognosis Techniques. Springer Series in Reliability Engineering, 2017, , .	0.3	32
62	Advances in Data-Driven RUL Prognosis Techniques. Springer Series in Reliability Engineering, 2017, , 3-21.	0.3	0
63	An Adaptive Remaining Useful Life Estimation Approach with a Recursive Filter. Springer Series in Reliability Engineering, 2017, , 73-102.	0.3	0
64	An Exact and Closed-Form Solution to Degradation Path-Dependent RUL Estimation. Springer Series in Reliability Engineering, 2017, , 103-142.	0.3	0
65	Estimating RUL with Three-Source Variability in Degradation Modeling. Springer Series in Reliability Engineering, 2017, , 143-180.	0.3	0
66	Prognostics for Age- and State-Dependent Nonlinear Degrading Systems. Springer Series in Reliability Engineering, 2017, , 217-246.	0.3	0
67	Prognostics for Hidden and Age-Dependent Nonlinear Degrading Systems. Springer Series in Reliability Engineering, 2017, , 273-311.	0.3	0
68	Prognostics for Nonlinear Degrading Systems with Three-Source Variability. Springer Series in Reliability Engineering, 2017, , 313-336.	0.3	0
69	RSL Prediction Approach for Systems with Operation State Switches. Springer Series in Reliability Engineering, 2017, , 337-360.	0.3	0
70	A Real-Time Variable Cost-Based Maintenance Model. Springer Series in Reliability Engineering, 2017, , 393-404.	0.3	2
71	An Adaptive Spare Parts Demand Forecasting Method Based on Degradation Modeling. Springer Series in Reliability Engineering, 2017, , 405-417.	0.3	1
72	Variable Cost-Based Maintenance and Inventory Model. Springer Series in Reliability Engineering, 2017, , 419-430.	0.3	1

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73	Planning Repeated Degradation Testing for Degrading Products. Springer Series in Reliability Engineering, 2017, , 23-37.	0.3	1
74	Specifying Measurement Errors for Required Lifetime Estimation Performance. Springer Series in Reliability Engineering, 2017, , 39-69.	0.3	23
75	RUL Estimation Based on a Nonlinear Diffusion Degradation Process. Springer Series in Reliability Engineering, 2017, , 183-215.	0.3	0
76	Adaptive Prognostic Approach via Nonlinear Degradation Modeling. Springer Series in Reliability Engineering, 2017, , 247-271.	0.3	1
77	Lifetime prognostics for deteriorating systems with time-varying random jumps. Reliability Engineering and System Safety, 2017, 167, 338-350.	5.1	30
78	Adaptive sliding mode control of non-linear non-minimum phase system with input delay. IET Control Theory and Applications, 2017, 11, 1153-1161.	1.2	17
79	Nonlinear adaptive tracking control of non-minimum phase hypersonic flight vehicles with unknown input nonlinearity. Nonlinear Dynamics, 2017, 90, 1151-1163.	2.7	15
80	A Novel Unified and Self-Stabilizing Algorithm for Generalized Eigenpairs Extraction. IEEE Transactions on Neural Networks and Learning Systems, 2017, 28, 3032-3044.	7.2	14
81	Stochastic degradation process modeling and remaining useful life estimation with flexible random-effects. Journal of the Franklin Institute, 2017, 354, 2477-2499.	1.9	22
82	A Prognostic Model for Stochastic Degrading Systems With State Recovery: Application to Li-Ion Batteries. IEEE Transactions on Reliability, 2017, 66, 1293-1308.	3.5	54
83	A prognostic approach for systems subject to wiener degradation process with cumulative-type random shocks. , 2017, , .		3
84	A new age-dependent degradation model based on diffusion process. , 2017, , .		0
85	Predicting remaining useful life of degraded control systems considering three-source factors. , 2017, , .		0
86	A novel life prediction method for equipment considering the influence of imperfect maintenance activities. , 2017, , .		0
87	Lifetime estimation for battery with the regeneration phenomena in both degradation state and rate. , 2017, , .		0
88	A Novel Multi-Phase Stochastic Model for Lithium-Ion Batteriesâ€™ Degradation with Regeneration Phenomena. Energies, 2017, 10, 1687.	1.6	18
89	Degradation Data-Driven Remaining Useful Life Estimation in the Absence of Prior Degradation Knowledge. Journal of Control Science and Engineering, 2017, 2017, 1-11.	0.8	9
90	An improved remaining useful life prediction method for system with volatile degradation path. , 2016, , .		0

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91	A degradation-modeling based prognostic approach for systems with switching operating process. , 2016, , .		2
92	Risk evaluation for deteriorating systems with accuracy analysis of parameter estimation. , 2016, , .		0
93	Remaining useful life estimation based on Wiener degradation processes with random failure threshold. Journal of Central South University, 2016, 23, 2230-2241.	1.2	18
94	A prognostic model for degrading systems with randomly arriving shocks. , 2016, , .		1
95	Planning Repeated Degradation Testing for Products With Three-Source Variability. IEEE Transactions on Reliability, 2016, 65, 640-647.	3.5	14
96	A Nonlinear Prognostic Model for Degrading Systems With Three-Source Variability. IEEE Transactions on Reliability, 2016, 65, 736-750.	3.5	52
97	A prognosis approach for systems with Alternative Degradation and Recovery. , 2015, , .		0
98	Modeling for Prognostics and Health Management: Methods and Applications. Mathematical Problems in Engineering, 2015, 2015, 1-4.	0.6	0
99	Degradation modelingâ€“based remaining useful life estimation: A review on approaches for systems with heterogeneity. Proceedings of the Institution of Mechanical Engineers, Part O: Journal of Risk and Reliability, 2015, 229, 343-355.	0.6	28
100	An adaptive spare parts demand forecasting method based on degradation modeling. , 2015, , .		0
101	A Prognostic-Information-Based Order-Replacement Policy for a Non-Repairable Critical System in Service. IEEE Transactions on Reliability, 2015, 64, 721-735.	3.5	31
102	A survey on life prediction of equipment. Chinese Journal of Aeronautics, 2015, 28, 25-33.	2.8	29
103	An Adaptive Prognostic Approach via Nonlinear Degradation Modeling: Application to Battery Data. IEEE Transactions on Industrial Electronics, 2015, 62, 5082-5096.	5.2	177
104	An Age- and State-Dependent Nonlinear Prognostic Model for Degrading Systems. IEEE Transactions on Reliability, 2015, 64, 1214-1228.	3.5	71
105	Remaining Useful Life Prediction of Lithium-Ion Batteries Based on the Wiener Process with Measurement Error. Energies, 2014, 7, 520-547.	1.6	210
106	A method for specifying critical threshold of Wiener degradation process. , 2014, , .		0
107	Remaining Useful Life Estimation for Systems with Timeâ€“varying Mean and Variance of Degradation Processes. Quality and Reliability Engineering International, 2014, 30, 829-841.	1.4	16
108	A simulation-based remaining useful life prediction method considering the influence of maintenance activities. , 2014, , .		7

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109	Estimating Remaining Useful Life With Three-Source Variability in Degradation Modeling. IEEE Transactions on Reliability, 2014, 63, 167-190.	3.5	170
110	An Additive Wiener Process-Based Prognostic Model for Hybrid Deteriorating Systems. IEEE Transactions on Reliability, 2014, 63, 208-222.	3.5	73
111	A Generalized Result for Degradation Model-Based Reliability Estimation. IEEE Transactions on Automation Science and Engineering, 2014, 11, 632-637.	3.4	50
112	A real-time prognostic method for the drift errors in the inertial navigation system by a nonlinear random-coefficient regression model. Acta Astronautica, 2014, 103, 45-54.	1.7	18
113	A Residual Storage Life Prediction Approach for Systems With Operation State Switches. IEEE Transactions on Industrial Electronics, 2014, 61, 6304-6315.	5.2	68
114	A case study of remaining storage life prediction using stochastic filtering with the influence of condition monitoring. Reliability Engineering and System Safety, 2014, 132, 186-195.	5.1	32
115	Nonlinear Degradation Process Modeling and Remaining Useful Life Estimation Subject to Measurement Error. Zidonghua Xuebao/Acta Automatica Sinica, 2014, 39, 530-541.	0.3	18
116	A Survey on Anomaly Detection, Life Prediction and Maintenance Decision for Industrial Processes. Zidonghua Xuebao/Acta Automatica Sinica, 2014, 39, 711-722.	0.3	29
117	A new remaining useful life prediction approach for independent component based on the Wiener process and Bayesian estimating paradigm. , 2013, , .		3
118	New dimensionless parameter construction using genetic programming for fault classifying of rotating machinery. , 2013, , .		0
119	Specifying measurement errors for required lifetime estimation performance. European Journal of Operational Research, 2013, 231, 631-644.	3.5	43
120	A State-Space-Based Prognostic Model for Hidden and Age-Dependent Nonlinear Degradation Process. IEEE Transactions on Automation Science and Engineering, 2013, 10, 1072-1086.	3.4	65
121	A Wiener-process-based degradation model with a recursive filter algorithm for remaining useful life estimation. Mechanical Systems and Signal Processing, 2013, 35, 219-237.	4.4	362
122	A maintenance optimization model for mission-oriented systems based on Wiener degradation. Reliability Engineering and System Safety, 2013, 111, 183-194.	5.1	113
123	A degradation path-dependent approach for remaining useful life estimation with an exact and closed-form solution. European Journal of Operational Research, 2013, 226, 53-66.	3.5	215
124	Forecasting spare parts demand based on degradation modeling. , 2013, , .		0
125	Concurrent Fault Diagnosis for Rotating Machinery Based on Vibration Sensors. International Journal of Distributed Sensor Networks, 2013, 9, 472675.	1.3	17
126	A compound fault integrated diagnosis method for rotating machinery base on dimensionless immune detector. , 2013, , .		3

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127	Degradation data-driven approach for remaining useful life estimation. Journal of Systems Engineering and Electronics, 2013, 24, 173-182.	1.1	14
128	A real-time variable cost-based maintenance model from prognostic information. , 2012, , .		3
129	An off-online fuzzy modelling method for fault prognosis with an application. , 2012, , .		5
130	Remaining Useful Life Estimation Based on a Nonlinear Diffusion Degradation Process. IEEE Transactions on Reliability, 2012, 61, 50-67.	3.5	460
131	An adaptive and nonlinear drift-based Wiener process for remaining useful life estimation. , 2011, , .		12
132	An adaptive Wiener-maximum-process-based model for remaining useful life estimation. , 2011, , .		4
133	A New Prediction Model Based on Belief Rule Base for System's Behavior Prediction. IEEE Transactions on Fuzzy Systems, 2011, 19, 636-651.	6.5	50
134	Online Updating With a Probability-Based Prediction Model Using Expectation Maximization Algorithm for Reliability Forecasting. IEEE Transactions on Systems, Man and Cybernetics, Part A: Systems and Humans, 2011, 41, 1268-1277.	3.4	15
135	Study on an intelligent fault-tolerant technique for multiple satellite configured navigation under highly dynamic conditions. Science China Information Sciences, 2011, 54, 529-541.	2.7	2
136	On the dynamic evidential reasoning algorithm for fault prediction. Expert Systems With Applications, 2011, 38, 5061-5080.	4.4	59
137	Remaining useful life estimation " A review on the statistical data driven approaches. European Journal of Operational Research, 2011, 213, 1-14.	3.5	1,615
138	System reliability prediction model based on evidential reasoning algorithm with nonlinear optimization. Expert Systems With Applications, 2010, 37, 2550-2562.	4.4	41
139	Fault prediction model based on evidential reasoning approach. Science China Information Sciences, 2010, 53, 2032-2046.	2.7	17
140	Dynamic evidential reasoning algorithm for systems reliability prediction. International Journal of Systems Science, 2010, 41, 783-796.	3.7	15
141	Residual life estimation of lithium-ion batteries based on nonlinear Wiener process with measurement error. Proceedings of the Institution of Mechanical Engineers, Part O: Journal of Risk and Reliability, 0, , 1748006X2210803.	0.6	2