

Uwe Kruger

List of Publications by Year in descending order

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Version: 2024-02-01

118
papers

4,118
citations

136740

32
h-index

123241

61
g-index

129
all docs

129
docs citations

129
times ranked

3494
citing authors

#	ARTICLE	IF	CITATIONS
1	Deep neural networks for the assessment of surgical skills: A systematic review. Journal of Defense Modeling and Simulation, 2022, 19, 159-171.	1.2	19
2	Regularized error-in-variable estimation for big data modeling and process analytics. Control Engineering Practice, 2022, 121, 105060.	3.2	2
3	Thermally damaged porcine skin is not a surrogate mechanical model of human skin. Scientific Reports, 2022, 12, 4565.	1.6	4
4	Deep learning-based motion artifact removal in functional near-infrared spectroscopy. Neurophotonics, 2022, 9, 041406.	1.7	10
5	Multivariate analysis reveals topography dependent relationships amongst neurite morphological features from dorsal root ganglia neurons. Journal of Neural Engineering, 2022, .	1.8	1
6	An Auto-Adjustable and Time-Consistent Model for Determining Coagulant Dosage Based on Operators's™ Experience. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2021, 51, 5614-5625.	5.9	9
7	Functional Brain Imaging Reliably Predicts Bimanual Motor Skill Performance in a Standardized Surgical Task. IEEE Transactions on Biomedical Engineering, 2021, 68, 2058-2066.	2.5	17
8	Raman spectroscopy accurately classifies burn severity in an ex vivo model. Burns, 2021, 47, 812-820.	1.1	3
9	Prediction of Coronary Calcification and Stenosis: Role of Radiomics From Low-Dose CT. Academic Radiology, 2021, 28, 972-979.	1.3	9
10	Decreasing the Surgical Errors by Neurostimulation of Primary Motor Cortex and the Associated Brain Activation via Neuroimaging. Frontiers in Neuroscience, 2021, 15, 651192.	1.4	15
11	Optimized collusion prevention for online exams during social distancing. Npj Science of Learning, 2021, 6, 5.	1.5	25
12	Efficient cross-validators algorithm for identifying dynamic nonlinear process models. Control Engineering Practice, 2021, 111, 104787.	3.2	4
13	Association of AI quantified COVID-19 chest CT and patient outcome. International Journal of Computer Assisted Radiology and Surgery, 2021, 16, 435-445.	1.7	21
14	Knowledge-Based Analysis for Mortality Prediction From CT Images. IEEE Journal of Biomedical and Health Informatics, 2020, 24, 457-464.	3.9	23
15	Practical Considerations on Nonparametric Methods for Estimating Intrinsic Dimensions of Nonlinear Data Structures. International Journal of Pattern Recognition and Artificial Intelligence, 2020, 34, 2058010.	0.7	1
16	A machine learning approach to predict surgical learning curves. Surgery, 2020, 167, 321-327.	1.0	18
17	Surgeons With Five or More Actual Cricothyrotomies Perform Significantly Better on a Virtual Reality Simulator. Journal of Surgical Research, 2020, 252, 247-254.	0.8	6
18	Altered metabolism of mothers of young children with Autism Spectrum Disorder: a case control study. BMC Pediatrics, 2020, 20, 557.	0.7	14

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19	Real-time Burn Classification using Ultrasound Imaging. Scientific Reports, 2020, 10, 5829.	1.6	14
20	Hierarchical density decompositions for abnormal event diagnosis in serially correlated non-Gaussian systems. Control Engineering Practice, 2020, 96, 104295.	3.2	1
21	Deep learning in medical image registration: a survey. Machine Vision and Applications, 2020, 31, 1.	1.7	343
22	A deep learning approach to remove motion artifacts in fNIRS data analysis. , 2020, , .		2
23	Monitoring the effect of transcranial Electric current Stimulation (tES) during a bimanual motor task via functional Near-InfraRed Spectroscopy (fNIRS). , 2020, , .		0
24	Modeling of moral decisions with deep learning. Visual Computing for Industry, Biomedicine, and Art, 2020, 3, 27.	2.2	6
25	Framework of Randomized Distribution Features for Visual Representation and Categorization. IEEE Transactions on Cybernetics, 2019, 49, 3599-3606.	6.2	2
26	Structured sequential Gaussian graphical models for monitoring time-varying process. Control Engineering Practice, 2019, 91, 104099.	3.2	8
27	Monitoring Nonstationary Processes Using Stationary Subspace Analysis and Fractional Integration Order Estimation. Industrial & Engineering Chemistry Research, 2019, 58, 6486-6504.	1.8	21
28	Monitoring nonstationary and dynamic trends for practical process fault diagnosis. Control Engineering Practice, 2019, 84, 139-158.	3.2	15
29	Competitive performance of a modularized deep neural network compared to commercial algorithms for low-dose CT image reconstruction. Nature Machine Intelligence, 2019, 1, 269-276.	8.3	256
30	In Vivo Layer-Specific Mechanical Characterization of Porcine Stomach Tissue Using a Customized Ultrasound Elastography System. Journal of Biomechanical Engineering, 2019, 141, .	0.6	3
31	Burn-related Collagen Conformational Changes in ex vivo Porcine Skin using Raman Spectroscopy. Scientific Reports, 2019, 9, 19138.	1.6	18
32	Objective assessment of surgical skill transfer using non-invasive brain imaging. Surgical Endoscopy and Other Interventional Techniques, 2019, 33, 2485-2494.	1.3	15
33	Learning deep similarity metric for 3D MRâ€“TRUS image registration. International Journal of Computer Assisted Radiology and Surgery, 2019, 14, 417-425.	1.7	101
34	A novel transfer learning framework for low-dose CT. , 2019, , .		8
35	Low-dose CT simulation with a generative adversarial network. , 2019, , .		2
36	Erythrocyte fatty acid profiles in children are not predictive of autism spectrum disorder status: a case control study. Biomarker Research, 2018, 6, 12.	2.8	9

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37	3-D Convolutional Encoder-Decoder Network for Low-Dose CT via Transfer Learning From a 2-D Trained Network. IEEE Transactions on Medical Imaging, 2018, 37, 1522-1534.	5.4	303
38	Investigating plasma amino acids for differentiating individuals with autism spectrum disorder and typically developing peers. Research in Autism Spectrum Disorders, 2018, 50, 60-72.	0.8	15
39	Correction for "3D Convolutional Encoder-Decoder Network for Low-Dose CT via Transfer Learning From a 2D Trained Network" [Jun 18 1522-1534]. IEEE Transactions on Medical Imaging, 2018, 37, 2750-2750.	5.4	7
40	Comparison of Three Clinical Trial Treatments for Autism Spectrum Disorder Through Multivariate Analysis of Changes in Metabolic Profiles and Adaptive Behavior. Frontiers in Cellular Neuroscience, 2018, 12, 503.	1.8	19
41	Assessing bimanual motor skills with optical neuroimaging. Science Advances, 2018, 4, eaat3807.	4.7	59
42	Maternal metabolic profile predicts high or low risk of an autism pregnancy outcome. Research in Autism Spectrum Disorders, 2018, 56, 72-82.	0.8	18
43	Ultrasound elastography reliably identifies altered mechanical properties of burned soft tissues. Burns, 2018, 44, 1521-1530.	1.1	13
44	Increased separability of K-edge nanoparticles by photon-counting detectors for spectral micro-CT. Journal of X-Ray Science and Technology, 2018, 26, 707-726.	0.7	8
45	Intravenous immunoglobulin for the treatment of autoimmune encephalopathy in children with autism. Translational Psychiatry, 2018, 8, 148.	2.4	45
46	Nonparametric Density Estimation of Hierarchical Probabilistic Graph Models for Assumption-Free Monitoring. Industrial & Engineering Chemistry Research, 2017, 56, 1278-1287.	1.8	17
47	Cross-validatory framework for optimal parameter estimation of KPCA and KPLS models. Chemometrics and Intelligent Laboratory Systems, 2017, 167, 196-207.	1.8	16
48	Monitoring Nonstationary Dynamic Systems Using Cointegration and Common-Trends Analysis. Industrial & Engineering Chemistry Research, 2017, 56, 8895-8905.	1.8	28
49	Zonal variation of MRI-measurable parameters classifies cartilage degradation. Journal of Biomechanics, 2017, 65, 176-184.	0.9	8
50	Diagnosis of incipient fault conditions in batch processes using estimated data covariance structures. IFAC-PapersOnLine, 2017, 50, 12779-12784.	0.5	0
51	Process monitoring using probabilistic graphical models via nonparametric density estimation. The authors would like to thank financial support from the National Natural Science Foundation of China (Grant No. 61203088, 61563018), the Natural Science Foundation of Jiangxi (Grant No. 20171ACB21001) and the Jiangxi Industry (Jiangnan University), Ministry of Education. IFAC PapersOnLine, 2017, 50, 13886-13891.	0.5	0
52	Monitoring of dynamic process using hierarchical probability density decomposition. , 2017, , .		0
53	Classification and adaptive behavior prediction of children with autism spectrum disorder based upon multivariate data analysis of markers of oxidative stress and DNA methylation. PLoS Computational Biology, 2017, 13, e1005385.	1.5	90
54	Significant Association of Urinary Toxic Metals and Autism-Related Symptoms: A Nonlinear Statistical Analysis with Cross Validation. PLoS ONE, 2017, 12, e0169526.	1.1	30

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55	Increased Sensitivity in Discriminating Surgical Motor Skills Using Prefrontal Cortex Activation over Established Metrics. , 2017, , .		0
56	Block adaptive kernel principal component analysis for nonlinear process monitoring. AICHE Journal, 2016, 62, 4334-4345.	1.8	33
57	Learning Linear Representation of Space Partitioning Trees Based on Unsupervised Kernel Dimension Reduction. IEEE Transactions on Cybernetics, 2016, 46, 3427-3438.	6.2	1
58	Semisupervised Pedestrian Counting With Temporal and Spatial Consistencies. IEEE Transactions on Intelligent Transportation Systems, 2015, 16, 1705-1715.	4.7	15
59	Fault detection in dynamic systems using the Kullback-Leibler divergence. Control Engineering Practice, 2015, 43, 39-48.	3.2	46
60	Adaptive KPCA Modeling of Nonlinear Systems. IEEE Transactions on Signal Processing, 2015, 63, 2364-2376.	3.2	34
61	A Novel Bayesian Robust Model and Its Application for Fault Detection and Automatic Supervision of Nonlinear Process. Industrial & Engineering Chemistry Research, 2015, 54, 5048-5061.	1.8	2
62	Seasonal Analysis and Prediction of Wind Energy Using Random Forests and ARX Model Structures. IEEE Transactions on Control Systems Technology, 2015, 23, 1994-2002.	3.2	38
63	Regression-based analysis of multivariate non-Gaussian datasets for diagnosing abnormal situations in chemical processes. AICHE Journal, 2014, 60, 148-159.	1.8	8
64	Detecting abnormal situations using the Kullback-Leibler divergence. Automatica, 2014, 50, 2777-2786.	3.0	91
65	An error-in-variable projection to latent structure framework for monitoring technical systems with orthogonal signal components. Chemometrics and Intelligent Laboratory Systems, 2014, 133, 70-83.	1.8	4
66	Modeling and performance monitoring of multivariate multimodal processes. AICHE Journal, 2013, 59, 1557-1569.	1.8	59
67	Process monitoring based on Kullback-Leibler divergence. , 2013, , .		1
68	Input reconstruction for statistical-based fault detection and isolation. AICHE Journal, 2012, 58, 1513-1523.	1.8	10
69	Local ICA for multivariate statistical fault diagnosis in systems with unknown signal and error distributions. AICHE Journal, 2012, 58, 2357-2372.	1.8	46
70	A non-Gaussian regression algorithm based on mutual information maximization. Chemometrics and Intelligent Laboratory Systems, 2012, 111, 1-19.	1.8	11
71	Principal Curve Algorithms for Partitioning High-Dimensional Data Spaces. IEEE Transactions on Neural Networks, 2011, 22, 367-380.	4.8	12
72	Statistical Monitoring of Industrial Process Faults Using Local Independent Component Regression. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 2833-2838.	0.4	0

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73	Unified model-based fault diagnosis for three industrial application studies. Control Engineering Practice, 2011, 19, 479-490.	3.2	31
74	Input Reconstruction for Statistically Enhanced Fault Detection and Isolation. Computer Aided Chemical Engineering, 2010, 28, 193-198.	0.3	0
75	A unified statistical framework for monitoring multivariate systems with unknown source and error signals. Chemometrics and Intelligent Laboratory Systems, 2010, 104, 223-232.	1.8	18
76	Fault detection in non-Gaussian vibration systems using dynamic statistical-based approaches. Mechanical Systems and Signal Processing, 2010, 24, 2972-2984.	4.4	52
77	A RIEMANNIAN DISTANCE APPROACH FOR CONSTRUCTING PRINCIPAL CURVES. International Journal of Neural Systems, 2010, 20, 209-218.	3.2	4
78	Improved fault diagnosis in multivariate systems using regression-based reconstruction. Control Engineering Practice, 2009, 17, 478-493.	3.2	25
79	Multivariate statistical analysis applied to an IL6 signal transduction model in hepatocytes. Statistics in Medicine, 2009, 28, 2401-2434.	0.8	6
80	Sensor fault identification and isolation for multivariate non-Gaussian processes. Journal of Process Control, 2009, 19, 1707-1715.	1.7	35
81	Moving window kernel PCA for adaptive monitoring of nonlinear processes. Chemometrics and Intelligent Laboratory Systems, 2009, 96, 132-143.	1.8	172
82	Cointegration Testing Method for Monitoring Nonstationary Processes. Industrial & Engineering Chemistry Research, 2009, 48, 3533-3543.	1.8	89
83	Comparison Between Statistical and Observer-Based Approaches for Fault Detection and Isolation in a Chemical Process. Computer Aided Chemical Engineering, 2009, 27, 1257-1262.	0.3	0
84	Robust partial least squares regression: Part I, algorithmic developments. Journal of Chemometrics, 2008, 22, 1-13.	0.7	31
85	Robust partial least squares regression: Part II, new algorithm and benchmark studies. Journal of Chemometrics, 2008, 22, 14-22.	0.7	9
86	Robust partial least squares regression—part III, outlier analysis and application studies. Journal of Chemometrics, 2008, 22, 323-334.	0.7	5
87	Improved process monitoring using nonlinear principal component models. International Journal of Intelligent Systems, 2008, 23, 520-544.	3.3	12
88	Statistical-based monitoring of multivariate non-Gaussian systems. AIChE Journal, 2008, 54, 2379-2391.	1.8	102
89	Diagnosis of process faults in chemical systems using a local partial least squares approach. AIChE Journal, 2008, 54, 2581-2596.	1.8	86
90	Nonlinear PCA With the Local Approach for Diesel Engine Fault Detection and Diagnosis. IEEE Transactions on Control Systems Technology, 2008, 16, 122-129.	3.2	80

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91	Developments and Applications of Nonlinear Principal Component Analysis – a Review. Lecture Notes in Computational Science and Engineering, 2008, , 1-43.	0.1	28
92	Adaptive Constraint K-Segment Principal Curves for Intelligent Transportation Systems. IEEE Transactions on Intelligent Transportation Systems, 2008, 9, 666-677.	4.7	32
93	Semi-physical Neural Network Model in Detecting Engine Transient Faults using the Local Approach. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2008, 41, 7086-7090.	0.4	2
94	Fast Moving Window Algorithm for QR and Cholesky Decompositions. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2008, 41, 10106-10111.	0.4	2
95	Application of Auto-Associative Neural Networks to Transient Fault Detection in an IC Engine. , 2007, , 555.		0
96	Analysis of IL6 Signal Transduction Model using Reduced Rank Regression. Control Applications (CCA), Proceedings of the IEEE International Conference on, 2007, , .	0.0	0
97	Improved principal component monitoring using the local approach. Automatica, 2007, 43, 1532-1542.	3.0	84
98	Regression-Based Variable Reconstruction in Multivariate Systems. , 2007, , 402-407.		1
99	Nonlinear PCA for Process Monitoring Using the Local Approach. , 2007, , 96-101.		1
100	Identification of dynamic systems under closed-loop control. International Journal of Systems Science, 2006, 37, 181-195.	3.7	15
101	Statistical Monitoring of Dynamic Multivariate Processes Part 1. Modeling Autocorrelation and Cross-correlation. Industrial & Engineering Chemistry Research, 2006, 45, 1659-1676.	1.8	32
102	Statistical Monitoring of Dynamic Multivariate Processes – Part 2. Identifying Fault Magnitude and Signature. Industrial & Engineering Chemistry Research, 2006, 45, 1677-1688.	1.8	9
103	NONLINEAR PCA FOR PROCESS MONITORING USING THE LOCAL APPROACH. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2006, 39, 96-101.	0.4	3
104	REGRESSION-BASED VARIABLE RECONSTRUCTION IN MULTIVARIATE SYSTEMS. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2006, 39, 402-407.	0.4	1
105	Deflation based nonlinear canonical correlation analysis. Chemometrics and Intelligent Laboratory Systems, 2006, 83, 34-43.	1.8	5
106	Improved reliability in diagnosing faults using multivariate statistics. Computers and Chemical Engineering, 2006, 30, 901-912.	2.0	41
107	SUBSPACE METHOD IDENTIFICATION FOR DYNAMIC MULTIVARIATE STATISTICAL PROCESS CONTROL. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2005, 38, 93-98.	0.4	0
108	PROCESS FAULT DIAGNOSIS USING RECURSIVE MULTIVARIATE STATISTICAL PROCESS CONTROL. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2005, 38, 287-292.	0.4	1

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109	A recursive rule base adjustment algorithm for a fuzzy logic controller. Fuzzy Sets and Systems, 2005, 156, 267-284.	1.6	11
110	Introduction of a nonlinearity measure for principal component models. Computers and Chemical Engineering, 2005, 29, 2355-2362.	2.0	36
111	Process Monitoring Approach Using Fast Moving Window PCA. Industrial & Engineering Chemistry Research, 2005, 44, 5691-5702.	1.8	281
112	Dynamic multivariate statistical process control using subspace identification. Journal of Process Control, 2004, 14, 279-292.	1.7	53
113	Regularised kernel density estimation for clustered process data. Control Engineering Practice, 2004, 12, 267-274.	3.2	50
114	Improved principal component monitoring of large-scale processes. Journal of Process Control, 2004, 14, 879-888.	1.7	84
115	Synthesis of T2 and Q statistics for process monitoring. Control Engineering Practice, 2004, 12, 745-755.	3.2	75
116	Recursive partial least squares algorithms for monitoring complex industrial processes. Control Engineering Practice, 2003, 11, 613-632.	3.2	167
117	DETECTION OF INCIPIENT TOOTH DEFECT IN HELICAL GEARS USING MULTIVARIATE STATISTICS. Mechanical Systems and Signal Processing, 2001, 15, 303-321.	4.4	67
118	Extended PLS approach for enhanced condition monitoring of industrial processes. AIChE Journal, 2001, 47, 2076-2091.	1.8	75