

V Roshan Joseph

List of Publications by Year in descending order

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83
papers

2,722
citations

201385

27
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48
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88
all docs

88
docs citations

88
times ranked

1701
citing authors

#	ARTICLE	IF	CITATIONS
1	Blind Kriging: A New Method for Developing Metamodels. Journal of Mechanical Design, Transactions of the ASME, 2008, 130, .	1.7	188
2	Maximum projection designs for computer experiments. Biometrika, 2015, 102, 371-380.	1.3	188
3	Building Surrogate Models Based on Detailed and Approximate Simulations. Journal of Mechanical Design, Transactions of the ASME, 2006, 128, 668-677.	1.7	182
4	Optimal ratio for data splitting. Statistical Analysis and Data Mining, 2022, 15, 531-538.	1.4	167
5	Space-filling designs for computer experiments: A review. Quality Engineering, 2016, 28, 28-35.	0.7	118
6	Efficient Robbins-Monro procedure for binary data. Biometrika, 2004, 91, 461-470.	1.3	92
7	Composite Gaussian process models for emulating expensive functions. Annals of Applied Statistics, 2012, 6, .	0.5	86
8	Support points. Annals of Statistics, 2018, 46, .	1.4	79
9	Sequential Exploration of Complex Surfaces Using Minimum Energy Designs. Technometrics, 2015, 57, 64-74.	1.3	72
10	Limit Kriging. Technometrics, 2006, 48, 458-466.	1.3	71
11	Statistical Adjustments to Engineering Models. Journal of Quality Technology, 2009, 41, 362-375.	1.8	70
12	Reliability Improvement Experiments With Degradation Data. IEEE Transactions on Reliability, 2006, 55, 149-157.	3.5	67
13	Structured variable selection and estimation. Annals of Applied Statistics, 2009, 3, .	0.5	65
14	Estimating mechanical properties from spherical indentation using Bayesian approaches. Materials and Design, 2018, 147, 92-105.	3.3	61
15	An Efficient Surrogate Model for Emulation and Physics Extraction of Large Eddy Simulations. Journal of the American Statistical Association, 2018, 113, 1443-1456.	1.8	59
16	An Efficient Variable Selection Approach for Analyzing Designed Experiments. Technometrics, 2007, 49, 430-439.	1.3	54
17	SPlit: An Optimal Method for Data Splitting. Technometrics, 2022, 64, 166-176.	1.3	52
18	Estimating and benchmarking Less-than-Truckload market rates. Transportation Research, Part E: Logistics and Transportation Review, 2010, 46, 667-682.	3.7	45

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19	A Bayesian Approach to the Design and Analysis of Fractionated Experiments. <i>Technometrics</i> , 2006, 48, 219-229.	1.3	44
20	Analysis of Computer Experiments With Functional Response. <i>Technometrics</i> , 2015, 57, 35-44.	1.3	43
21	Active Learning Through Sequential Design, With Applications to Detection of Money Laundering. <i>Journal of the American Statistical Association</i> , 2009, 104, 969-981.	1.8	41
22	Regression-Based Inverse Distance Weighting With Applications to Computer Experiments. <i>Technometrics</i> , 2011, 53, 254-265.	1.3	41
23	Functionally Induced Priors for the Analysis of Experiments. <i>Technometrics</i> , 2007, 49, 1-11.	1.3	40
24	Calibrating Functional Parameters in the Ion Channel Models of Cardiac Cells. <i>Journal of the American Statistical Association</i> , 2016, 111, 500-509.	1.8	39
25	Quality Loss Functions for Nonnegative Variables and Their Applications. <i>Journal of Quality Technology</i> , 2004, 36, 129-138.	1.8	38
26	Engineering-Driven Statistical Adjustment and Calibration. <i>Technometrics</i> , 2015, 57, 257-267.	1.3	33
27	Minimax and Minimax Projection Designs Using Clustering. <i>Journal of Computational and Graphical Statistics</i> , 2018, 27, 166-178.	0.9	33
28	Statistical Modeling and Analysis for Robust Synthesis of Nanostructures. <i>Journal of the American Statistical Association</i> , 2008, 103, 594-603.	1.8	31
29	Robust Parameter Design With Feed-Forward Control. <i>Technometrics</i> , 2003, 45, 284-292.	1.3	26
30	Building Surrogate Models Based on Detailed and Approximate Simulations. , 2004, , 963.		26
31	Design and Analysis of Computer Experiments With Branching and Nested Factors. <i>Technometrics</i> , 2009, 51, 354-365.	1.3	26
32	Robust Parameter Design of Multiple-Target Systems. <i>Technometrics</i> , 2002, 44, 338-346.	1.3	25
33	Designing computer experiments with multiple types of factors: The MaxPro approach. <i>Journal of Quality Technology</i> , 2020, 52, 343-354.	1.8	25
34	Operating Window Experiments: A Novel Approach to Quality Improvement. <i>Journal of Quality Technology</i> , 2002, 34, 345-354.	1.8	24
35	Statistical approach to quantifying the elastic deformation of nanomaterials. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009, 106, 11845-11850.	3.3	24
36	Failure Amplification Method: An Information Maximization Approach to Categorical Response Optimization. <i>Technometrics</i> , 2004, 46, 1-12.	1.3	22

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37	Deterministic Sampling of Expensive Posteriors Using Minimum Energy Designs. <i>Technometrics</i> , 2019, 61, 297-308.	1.3	22
38	Robust optimization of the output voltage of nanogenerators by statistical design of experiments. <i>Nano Research</i> , 2010, 3, 613-619.	5.8	21
39	A physical-statistical model for density control of nanowires. <i>IIE Transactions</i> , 2011, 43, 233-241.	2.1	19
40	Reaction-Diffusion Transport Model to Predict Precursor Uptake and Spatial Distribution in Vapor-Phase Infiltration Processes. <i>Chemistry of Materials</i> , 2021, 33, 5210-5222.	3.2	19
41	Supervised compression of big data. <i>Statistical Analysis and Data Mining</i> , 2021, 14, 217-229.	1.4	17
42	Bayesian Computation Using Design of Experiments-Based Interpolation Technique. <i>Technometrics</i> , 2012, 54, 209-225.	1.3	16
43	Function-on-Function Kriging, With Applications to Three-Dimensional Printing of Aortic Tissues. <i>Technometrics</i> , 2021, 63, 384-395.	1.3	16
44	Bayesian Sequential Design of Experiments for Extraction of Single-Crystal Material Properties from Spherical Indentation Measurements on Polycrystalline Samples. <i>Jom</i> , 2019, 71, 2671-2679.	0.9	15
45	IMPROVING THE YIELD OF PRINTED CIRCUIT BOARDS USING DESIGN OF EXPERIMENTS. <i>Quality Engineering</i> , 1999, 12, 259-265.	0.7	14
46	Bayesian Optimal Single Arrays for Robust Parameter Design. <i>Technometrics</i> , 2009, 51, 250-261.	1.3	14
47	A statistical approach to the optimization of a laser-assisted micromachining process. <i>International Journal of Advanced Manufacturing Technology</i> , 2011, 53, 221-230.	1.5	14
48	Modeling and Analysis of Forces in Laser Assisted Micro Milling. <i>Journal of Manufacturing Science and Engineering, Transactions of the ASME</i> , 2013, 135, .	1.3	13
49	Bayesian-inspired minimum aberration two- and four-level designs. <i>Biometrika</i> , 2009, 96, 95-106.	1.3	12
50	Model Calibration Through Minimal Adjustments. <i>Technometrics</i> , 2014, 56, 474-482.	1.3	12
51	Analysis and Improvement of Blood Collection Operations. <i>Manufacturing and Service Operations Management</i> , 2019, 21, 29-46.	2.3	12
52	Novel high voltage polymer insulators using computational and data-driven techniques. <i>Journal of Chemical Physics</i> , 2021, 154, 174906.	1.2	12
53	Multi-Layer Designs for Computer Experiments. <i>Journal of the American Statistical Association</i> , 2011, 106, 1139-1149.	1.8	11
54	American Red Cross Uses Analytics-Based Methods to Improve Blood-Collection Operations. <i>Interfaces</i> , 2018, 48, 24-34.	1.6	11

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55	Space-Filling Designs for Robustness Experiments. <i>Technometrics</i> , 2019, 61, 24-37.	1.3	11
56	Data Twinning. <i>Statistical Analysis and Data Mining</i> , 2022, 15, 598-610.	1.4	11
57	Design and Modeling Strategies for Mixture-of-Mixtures Experiments. <i>Technometrics</i> , 2011, 53, 125-136.	1.3	10
58	Gaussian process modeling for engineered surfaces with applications to Si wafer production. <i>Stat</i> , 2013, 2, 159-170.	0.3	10
59	Uncertainty quantification of machining simulations using an in situ emulator. <i>Journal of Quality Technology</i> , 2018, 50, 253-261.	1.8	9
60	Regression with outlier shrinkage. <i>Journal of Statistical Planning and Inference</i> , 2013, 143, 1988-2001.	0.4	8
61	Kernel Approximation: From Regression to Interpolation. <i>SIAM-ASA Journal on Uncertainty Quantification</i> , 2016, 4, 112-129.	1.1	8
62	Robust experimental designs for model calibration. <i>Journal of Quality Technology</i> , 2022, 54, 441-452.	1.8	8
63	Analysis of Optimization Experiments. <i>Journal of Quality Technology</i> , 2008, 40, 282-298.	1.8	7
64	Taguchi's approach to robust parameter design: A new perspective. <i>IIE Transactions</i> , 2007, 39, 805-810.	2.1	6
65	Integrating Analytical Models with Finite-Element Models: An Application in Micromachining. <i>Journal of Quality Technology</i> , 2013, 45, 200-212.	1.8	6
66	Model Calibration With Censored Data. <i>Technometrics</i> , 2018, 60, 255-262.	1.3	6
67	Transformation and Additivity in Gaussian Processes. <i>Technometrics</i> , 2020, 62, 525-535.	1.3	6
68	Optimal specifications for degrading characteristics. <i>IIE Transactions</i> , 2007, 40, 102-108.	2.1	5
69	Bayesian optimal blocking of factorial designs. <i>Journal of Statistical Planning and Inference</i> , 2009, 139, 3319-3328.	0.4	5
70	A Note on Nonnegative Dolt Approximation. <i>Technometrics</i> , 2013, 55, 103-107.	1.3	5
71	Bayesian optimization of functional output in inverse problems. <i>Optimization and Engineering</i> , 2021, 22, 2553-2574.	1.3	5
72	Modeling and Analysis Strategies for Failure Amplification Method. <i>Journal of Quality Technology</i> , 2008, 40, 128-139.	1.8	4

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73	Prediction of Yield in a Multiproduct Batch Production Environment. Quality Engineering, 2002, 14, 153-159.	0.7	3
74	Comment: Alternative Strategies for Experimental Design. Technometrics, 2013, 55, 289-292.	1.3	3
75	Discussion of "Three-phase optimal design of sensitivity experiments" by Wu and Tian. Journal of Statistical Planning and Inference, 2014, 149, 16-19.	0.4	2
76	A Conversation with Jeff Wu. Statistical Science, 2016, 31, .	1.6	2
77	Editorial: Celebrating 50 Years of Ridge Regression. Technometrics, 2020, 62, 419-419.	1.3	2
78	Orthogonal Gaussian process models. Statistica Sinica, 2017, , .	0.2	2
79	Constrained minimum energy designs. Statistics and Computing, 2021, 31, 1.	0.8	2
80	Bayesian process optimization using failure amplification method. Applied Stochastic Models in Business and Industry, 2011, 27, 402-409.	0.9	1
81	Developing Objective Strategies for Monitoring Multi Input/Single Output Chemical Process. , 1998, , 151-162.		1
82	Adaptive design for Gaussian process regression under censoring. Annals of Applied Statistics, 2022, 16, .	0.5	1
83	Population Quasi-Monte Carlo. Journal of Computational and Graphical Statistics, 0, , 1-35.	0.9	0