Gerhard Tutz

List of Publications by Year
in descending order

149 papers	6,039 citations	186265 28 h-index	79698 73 g-index
158 all docs	158 docs citations	158 times ranked	7068 citing authors

#	Article	IF	Citations
1	An introduction to recursive partitioning: Rationale, application, and characteristics of classification and regression trees, bagging, and random forests.. Psychological Methods, 2009, 14, 323-348.	3.5	1,831
2	Multivariate Statistical Modelling Based on Generalized Linear Models. Springer Series in Statistics, 1994, , .	0.9	544
3	Multivariate Statistical Modelling Based on Generalized Linear Models. Springer Series in Statistics, 2001, , .	0.9	540
4	Variable selection for generalized linear mixed models by L 1-penalized estimation. Statistics and Computing, 2014, 24, 137-154.	1.5	163
5	Sequential item response models with an ordered response. British Journal of Mathematical and Statistical Psychology, 1990, 43, 39-55.	1.4	143
6	Generalized Additive Modeling with Implicit Variable Selection by Likelihood-Based Boosting. Biometrics, 2006, 62, 961-971.	1.4	141
7	Random forest for ordinal responses: Prediction and variable selection. Computational Statistics and Data Analysis, 2016, 96, 57-73.	1.2	125
8	Random effects in ordinal regression models. Computational Statistics and Data Analysis, 1996, 22, 537-557.	1.2	104
9	Improved methods for the imputation of missing data by nearest neighbor methods. Computational Statistics and Data Analysis, 2015, 90, 84-99.	1.2	99
10	Variable Selection and Model Choice in Geoadditive Regression Models. Biometrics, 2009, 65, 626-634.	1.4	98
11	Sequential models in categorical regression. Computational Statistics and Data Analysis, 1991, 11, 275-295.	1.2	92
12	Boosting ridge regression. Computational Statistics and Data Analysis, 2007, 51, 6044-6059.	1.2	85
13	Modeling Discrete Time-to-Event Data. Springer Series in Statistics, 2016, , .	0.9	79
14	A CART-based approach to discover emerging patterns in microarray data. Bioinformatics, 2003, 19, 2465-2472.	4.1	74
15	Sparse modeling of categorial explanatory variables. Annals of Applied Statistics, 2010, 4, .	1.1	67
16	A Penalty Approach to Differential Item Functioning in Rasch Models. Psychometrika, 2015, 80, 21-43.	2.1	67
17	Local principal curves. Statistics and Computing, 2005, 15, 301-313.	1.5	62
18	Generalized monotonic regression based on B-splines with an application to air pollution data. Biostatistics, 2007, 8, 654-673.	1.5	61

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19	Penalized regression with correlation-based penalty. Statistics and Computing, 2009, 19, 239-253.	1.5	58
20	Dynamic Stochastic Models for Time-Dependent Ordered Paired Comparison Systems. Journal of the American Statistical Association, 1994, 89, 1438-1449.	3.1	56
21	Penalized Partial Least Squares with applications to B-spline transformations and functional data. Chemometrics and Intelligent Laboratory Systems, 2008, 94, 60-69.	3.5	55
22	Penalized Regression with Ordinal Predictors. International Statistical Review, 2009, 77, 345-365.	1.9	55
23	Regularized regression for categorical data. Statistical Modelling, 2016, 16, 161-200.	1.1	44
24	Feature selection guided by structural information. Annals of Applied Statistics, 2010, 4, .	1.1	34
25	Variable selection in general multinomial logit models. Computational Statistics and Data Analysis, 2015, 82, 207-222.	1.2	33
26	Bradley-Terry-Luce models with an ordered response. Journal of Mathematical Psychology, 1986, 30, 306-316.	1.8	32
27	Boosting techniques for nonlinear time series models. AStA Advances in Statistical Analysis, 2012, 96, 99-122.	0.9	32
28	Multiple imputation using nearest neighbor methods. Information Sciences, 2021, 570, 500-516.	6.9	32
29	Modelling beyond regression functions: an application of multimodal regression to speed–flow data. Journal of the Royal Statistical Society Series C: Applied Statistics, 2006, 55, 461-475.	1.0	30
30	A comparison of methods for the fitting of generalized additive models. Statistics and Computing, 2008, 18, 87-99.	1.5	30
31	Modelling of repeated ordered measurements by isotonic sequential regression. Statistical Modelling, 2005, 5, 269-287.	1.1	29
32	A uniform framework for the combination of penalties in generalized structured models. Advances in Data Analysis and Classification, 2017, 11, 97-120.	1.4	29
33	Prediction of major international soccer tournaments based on team-specific regularized Poisson regression: An application to the FIFA World Cup 2014. Journal of Quantitative Analysis in Sports, 2015, 11, .	1.0	26
34	Sequential Models for Ordered Responses. , 1997, , 139-152.		24
35	Local likelihood estimation in varying-coefficient models including additive bias correction. Journal of Nonparametric Statistics, 2000, 12, 343-371.	0.9	23
36	The survival of newly founded firms: a case-study into varying-coefficient models. Journal of the Royal Statistical Society Series A: Statistics in Society, 2005, 168, 145-158.	1.1	23

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37	Feature Extraction in Signal Regression: A Boosting Technique for Functional Data Regression. Journal of Computational and Graphical Statistics, 2010, 19, 154-174.	1.7	23
38	Mixture models for ordinal responses to account for uncertainty of choice. Advances in Data Analysis and Classification, 2017, 11, 281-305.	1.4	23
39	Competing risks models in discrete time with nominal or ordinal categories of response. Quality and Quantity, 1995, 29, 405-420.	3.7	22
40	Generalized Smooth Monotonic Regression in Additive Modeling. Journal of Computational and Graphical Statistics, 2007, 16, 165-188.	1.7	22
41	Selection of ordinally scaled independent variables with applications to international classification of functioning core sets. Journal of the Royal Statistical Society Series C: Applied Statistics, 2011, 60, 377-395.	1.0	22
42	Clustering in linear mixed models with approximate Dirichlet process mixtures using EM algorithm. Statistical Modelling, 2013, 13, 41-67.	1.1	22
43	Ordinal regression: A review and a taxonomy of models. Wiley Interdisciplinary Reviews: Computational Statistics, 2022, 14, e1545.	3.9	22
44	Compound Regression Models for Ordered Categorical Data. Biometrical Journal, 1989, 31, 259-272.	1.0	21
45	Localized classification. Statistics and Computing, 2005, 15, 155-166.	1.5	21
46	A boosting approach to flexible semiparametric mixed models. Statistics in Medicine, 2007, 26, 2872-2900.	1.6	21
47	A survival tree method for the analysis of discrete event times in clinical and epidemiological studies. Statistics in Medicine, 2016, 35, 734-751.	1.6	21
48	Testing generalized linear and semiparametric models against smooth alternatives. Journal of the Royal Statistical Society Series B: Statistical Methodology, 2001, 63, 147-166.	2.2	20
49	Generalized Semiparametrically Structured Ordinal Models. Biometrics, 2003, 59, 263-273.	1.4	20
50	Rating Scales as Predictors—The Old Question of Scale Level and Some Answers. Psychometrika, 2014, 79, 357-376.	2.1	20
51	Modelling uncertainty and response styles in ordinal data. Statistica Neerlandica, 2018, 72, 224-245.	1.6	20
52	Response Styles in the Partial Credit Model. Applied Psychological Measurement, 2018, 42, 407-427.	1.0	19
53	Modelling price paths in on-line auctions: smoothing sparse and unevenly sampled curves by using semiparametric mixed models. Journal of the Royal Statistical Society Series C: Applied Statistics, 2008, 57, 127-148.	1.0	18
54	Analysis of the importance of on-field covariates in the German Bundesliga. Journal of Applied Statistics, 2018, 45, 1561-1578.	1.3	18

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55	Clustering in linear mixed models with a group fused lasso penalty. Biometrical Journal, 2014, 56, 44-68.	1.0	16
56	Item-focussed Trees for the Identification of Items in Differential Item Functioning. Psychometrika, 2016, 81, 727-750.	2.1	16
57	Missing value imputation for gene expression data by tailored nearest neighbors. Statistical Applications in Genetics and Molecular Biology, 2017, 16, 95-106.	0.6	16
58	Flexible modelling of discrete failure time including time-varying smooth effects. Statistics in Medicine, 2004, 23, 2445-2461.	1.6	15
59	Regularization and model selection with categorical predictors and effect modifiers in generalized linear models. Statistical Modelling, 2014, 14, 157-177.	1.1	15
60	Knot selection by boosting techniques. Computational Statistics and Data Analysis, 2007, 51, 4605-4621.	1.2	14
61	Feature selection and weighting by nearest neighbor ensembles. Chemometrics and Intelligent Laboratory Systems, 2009, 99, 30-38.	3.5	14
62	Extended ordered paired comparison models with application to football data from German Bundesliga. AStA Advances in Statistical Analysis, 2015, 99, 209-227.	0.9	14
63	Random forests for functional covariates. Journal of Chemometrics, 2016, 30, 715-725.	1.3	14
64	Response Styles in Rating Scales. Journal of Educational and Behavioral Statistics, 2016, 41, 239-268.	1.7	14
65	Subject-specific modelling of paired comparison data: A lasso-type penalty approach. Statistical Modelling, 2017, 17, 223-243.	1.1	14
66	Boosting nonlinear additive autoregressive time series. Computational Statistics and Data Analysis, 2009, 53, 2453-2464.	1.2	13
67	Detection of Uniform and Nonuniform Differential Item Functioning by Item-Focused Trees. Journal of Educational and Behavioral Statistics, 2016, 41, 559-592.	1.7	13
68	Variable selection for discrete competing risks models. Quality and Quantity, 2016, 50, 1589-1610.	3.7	13
69	Generalized Linear Mixed Models Based on Boosting. , 2010, , 197-215.		13
70	Dynamic Stochastic Models for Time-Dependent Ordered Paired Comparison Systems. Journal of the American Statistical Association, 1994, 89, 1438.	3.1	13
71	Nonparametric estimation of discrete hazard functions. Lifetime Data Analysis, 1996, 2, 291-308.	0.9	12
72	Generalized linear random effects models with varying coefficients. Computational Statistics and Data Analysis, 2003, 43, 13-28.	1.2	12

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73	Nearest neighbor ensembles for functional data with interpretable feature selection. Chemometrics and Intelligent Laboratory Systems, 2015, 146, 186-197.	3.5	12
74	Modelling Clustered Heterogeneity: Fixed Effects, Random Effects and Mixtures. International Statistical Review, 2017, 85, 204-227.	1.9	12
75	Latent Trait-Modelle fÃ¼r ordinale Beobachtungen. Lehr- Und Forschungstexte Psychologie, 1989, , .	0.1	12
76	Non-Stationary Conditional Models for Spatial Data Based on Varying Coefficients. Journal of the Royal Statistical Society: Series D (the Statistician), 2001, 50, 1-15.	0.2	11
77	Identification of interaction patterns and classification with applications to microarray data. Computational Statistics and Data Analysis, 2006, 50, 783-802.	1.2	11
78	Multinomial logit models with implicit variable selection. Advances in Data Analysis and Classification, 2013, 7, 393-416.	1.4	11
79	Visualization of Categorical Response Models: From Data Glyphs to Parameter Glyphs. Journal of Computational and Graphical Statistics, 2013, 22, 156-177.	1.7	11
80	Selection of Effects in Cox Frailty Models by Regularization Methods. Biometrics, 2017, 73, 846-856.	1.4	11
81	Discrimination measures for discrete time-to-event predictions. Econometrics and Statistics, 2018, 7, 153-164.	0.8	11
82	Imputation methods for high-dimensional mixed-type datasets by nearest neighbors. Computers in Biology and Medicine, 2021, 135, 104577.	7.0	11
83	Supervised feature selection in mass spectrometry-based proteomic profiling by blockwise boosting. Bioinformatics, 2009, 25, 1076-1077.	4.1	10
84	Estimation of single-index models based on boosting techniques. Statistical Modelling, 2011, 11, 203-217.	1.1	10
85	Hierarchical Models for the Analysis of Likert Scales in Regression and Item Response Analysis. International Statistical Review, 2021, 89, 18-35.	1.9	10
86	Generalized semiparametrically structured mixed models. Computational Statistics and Data Analysis, 2004, 46, 777-800.	1.2	9
87	Semiparametric modelling of multicategorical data. Journal of Statistical Computation and Simulation, 2004, 74, 183-200.	1.2	9
88	Ridge estimation for multinomial logit models with symmetric side constraints. Computational Statistics, 2013, 28, 1017-1034.	1.5	9
89	Likelihood-Based Boosting in Binary and Ordinal Random Effects Models. Journal of Computational and Graphical Statistics, 2013, 22, 356-378.	1.7	9
90	Goodness of fit tests for probabilistic measurement models. Journal of Mathematical Psychology, 1980, 21, 153-167.	1.8	8

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91	Semi- and Nonparametric Modeling of Ordinal Data. Journal of Computational and Graphical Statistics, 2003, 12, 176-196.	1.7	8
92	Aggregating classifiers with ordinal response structure. Journal of Statistical Computation and Simulation, 2005, 75, 391-408.	1.2	8
93	Modeling electoral choices in multiparty systems with high-dimensional data: A regularized selection of parameters using the lasso approach. Journal of Choice Modelling, 2015, 16, 23-42.	2.3	8
94	Variable selection in discrete survival models including heterogeneity. Lifetime Data Analysis, 2017, 23, 305-338.	0.9	8
95	Item-Focused Trees for the Detection of Differential Item Functioning in Partial Credit Models. Educational and Psychological Measurement, 2018, 78, 781-804.	2.4	8
96	On association in regression: the coefficient of determination revisited. Statistics, 2008, 42, 1-24.	0.6	7
97	Detection of differential item functioning in Rasch models by boosting techniques. British Journal of Mathematical and Statistical Psychology, 2016, 69, 80-103.	1.4	7
98	Binary Response Models with Underlying Heterogeneity: Identification and Interpretation of Effects. European Sociological Review, 2018, 34, 211-221.	2.3	7
99	Nearest neighbor imputation for categorical data by weighting of attributes. Information Sciences, 2022, 592, 306-319.	6.9	7
100	Response shrinkage estimators in binary regression. Computational Statistics and Data Analysis, 2006, 50, 2878-2901.	1.2	6
101	Nonparametric estimation of the link function including variable selection. Statistics and Computing, 2012, 22, 545-561.	1.5	6
102	Selection and Fusion of Categorical Predictors with L0-Type Penalties. Statistical Modelling, 2015, 15, 389-410.	1.1	6
103	Improved nearest neighbor classifiers by weighting and selection of predictors. Statistics and Computing, 2016, 26, 1039-1057.	1.5	6
104	Tree-based modeling of time-varying coefficients in discrete time-to-event models. Lifetime Data Analysis, 2020, 26, 545-572.	0.9	6
105	Exploring Multivariate Data Structures with Local Principal Curves. , 2005, , 256-263.		6
106	Subject-specific Bradley–Terry–Luce models with implicit variable selection. Statistical Modelling, 2015, 15, 526-547.	1.1	5
107	Tree-structured modelling of categorical predictors in generalized additive regression. Advances in Data Analysis and Classification, 2018, 12, 737-758.	1.4	5
108	Flexible uncertainty in mixture models for ordinal responses. Journal of Applied Statistics, 2019, 46, 1582-1601.	1.3	5

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109	Tree-structured modelling of varying coefficients. Statistics and Computing, 2019, 29, 217-229.	1.5	5
110	Uncertainty in Latent Trait Models. Applied Psychological Measurement, 2020, 44, 447-464.	1.0	5
111	Genetic algorithms for the selection of smoothing parameters in additive models. Computational Statistics, 2006, 21, 9-31.	1.5	4
112	Tree-Structured Clustering in Fixed Effects Models. Journal of Computational and Graphical Statistics, 2018, 27, 380-392.	1.7	4
113	Subjective heterogeneity in response attitude for multivariate ordinal outcomes. Econometrics and Statistics, 2020, 14, 145-158.	0.8	4
114	Ordinal Trees and Random Forests: Score-Free Recursive Partitioning and Improved Ensembles. Journal of Classification, 2022, 39, 241-263.	2.2	4
115	ALTERNATIVE MEASURES OF THE EXPLANATORY POWER OF GENERAL MULTIVARIATE REGRESSION MODELS. Journal of Mathematical Sociology, 2004, 28, 125-146.	1.2	3
116	Variable scaling and nearest neighbor methods. Journal of Chemometrics, 2009, 23, 149-151.	1.3	3
117	Proportional Odds Models with High‐Dimensional Data Structure. International Statistical Review, 2013, 81, 388-406.	1.9	3
118	Additive mixed models with approximate Dirichlet process mixtures: the EM approach. Statistics and Computing, 2016, 26, 73-92.	1.5	3
119	Generalized additive models with unknown link function including variable selection. Journal of Applied Statistics, 2016, 43, 2866-2885.	1.3	2
120	The effect of explanatory variables on income: A tool that allows a closer look at the differences in income. Econometrics and Statistics, 2020, 16, 28-41.	0.8	2
121	Modelling heterogeneity: on the problem of group comparisons with logistic regression and the potential of the heterogeneous choice model. Advances in Data Analysis and Classification, 2020, 14, 517-542.	1.4	2
122	Uncertain Choices: The Heterogeneous Multinomial Logit Model. Sociological Methodology, 2021, 51, 86-111.	2.4	2
123	Regularization Methods in Economic Forecasting. Advanced Studies in Theoretical and Applied Econometrics, 2015, , 61-80.	0.1	2
124	Item Response Thresholds Models: A General Class of Models for Varying Types of Items. Psychometrika, 2022, 87, 1238-1269.	2.1	2
125	Heterogeneity in general multinomial choice models. Statistical Methods and Applications, 2023, 32, 129-148.	1.2	2
126	Guest Editorial: Regularisation Methods in Regression and Classification. Statistics and Computing, 2010, 20, 117-118.	1.5	1

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127	Shrinkage and variable selection by polytopes. Journal of Statistical Planning and Inference, 2012, 142, 48-64.	0.6	1
128	A Flexible Link Function for Discrete-Time Duration Models. Jahrbucher Fur Nationalokonomie Und Statistik, 2016, 236, 455-481.	0.7	1
129	Comparison of Maximum Likelihood with Conditional Pairwise Likelihood Estimation of Person Parameters in the Rasch Model. Communications in Statistics Part B: Simulation and Computation, 2016, 45, 2007-2017.	1.2	1
130	On the structure of ordered latent trait models. Journal of Mathematical Psychology, 2020, 96, 102346.	1.8	1
131	Tree-structured scale effects in binary and ordinal regression. Statistics and Computing, 2021, 31, 1.	1.5	1
132	Transition models for count data: a flexible alternative to fixed distribution models. Statistical Methods and Applications, 2021, 30, 1259.	1.2	1
133	A Rating Scale Mixture Model to Account for the Tendency to Middle and Extreme Categories. Journal of Educational and Behavioral Statistics, 0, , 107699862199255.	1.7	1
134	Multivariate ordinal random effects models including subject and group specific response style effects. Statistical Modelling, 2022, 22, 409-429.	1.1	1
135	Regularization and Model Selection with Categorical Covariates. Studies in Classification, Data Analysis, and Knowledge Organization, 2013, , 215-222.	0.2	1
136	BTLLasso: A Common Framework and Software Package for the Inclusion and Selection of Covariates in Bradley-Terry Models. Journal of Statistical Software, 2019, 88, .	3.7	1
137	Sparser Ordinal Regression Models Based on Parametric and Additive Location–Shift Approaches. International Statistical Review, 2022, 90, 306-327.	1.9	1
138	Bagging, Boosting and Ordinal Classification. , 2005, , 145-152.		0
139	Boosting Correlation Based Penalization in Generalized Linear Models. , 2008, , 165-180.		0
140	Comments on The class of cub models: statistical foundations, inferential issues and empirical evidence by D. Piccolo and R. Simone. Statistical Methods and Applications, 2019, 28, 471-475.	1.2	0
141	A Boosting Approach to Generalized Monotonic Regression. Studies in Classification, Data Analysis, and Knowledge Organization, 2007, , 245-254.	0.2	0
142	Multiple-Spell Analysis. Springer Series in Statistics, 2016, , 213-223.	0.9	0
143	Tree-Based Approaches. Springer Series in Statistics, 2016, , 129-148.	0.9	0
144	High-Dimensional Models: Structuring and Selection of Predictors. Springer Series in Statistics, 2016, , 149-165.	0.9	0

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145	Evaluation and Model Choice. Springer Series in Statistics, 2016, , 73-104.	0.9	0
146	Competing Risks Models. Springer Series in Statistics, 2016, , 167-184.	0.9	0
147	Frailty Models and Heterogeneity. Springer Series in Statistics, 2016, , 185-211.	0.9	0
148	Basic Regression Models. Springer Series in Statistics, 2016, , 35-72.	0.9	0
149	Simultaneous Selection of Variables and Smoothing Parameters in Additive Models. , 2005, , 146-153.		0