

# Andrew O Finley

## List of Publications by Year in descending order

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Version: 2024-02-01

81  
papers

3,901  
citations

147801  
31  
h-index

133252  
59  
g-index

83  
all docs

83  
docs citations

83  
times ranked

4157  
citing authors

| #  | ARTICLE   | IF   | CITATIONS |
|----|---|------|-----------|
| 1  | Highly Scalable Bayesian Geostatistical Modeling via Meshed Gaussian Processes on Partitioned Domains. <i>Journal of the American Statistical Association</i> , 2022, 117, 969-982.                 | 3.1  | 19        |
| 2  | Ecological forecasting of tree growth: Regional fusion of tree-ring and forest inventory data to quantify drivers and characterize uncertainty. <i>Global Change Biology</i> , 2022, 28, 2442-2460. | 9.5  | 29        |
| 3  | Simplifying Small Area Estimation With rFIA: A Demonstration of Tools and Techniques. <i>Frontiers in Forests and Global Change</i> , 2022, 5, .  | 2.3  | 3         |
| 4  | spOccupancy: An R package for single-species, multi-species, and integrated spatial occupancy models. <i>Methods in Ecology and Evolution</i> , 2022, 13, 1670-1678.                                | 5.2  | 32        |
| 5  | High-dimensional multivariate geostatistics: A Bayesian matrix-normal approach. <i>Environmetrics</i> , 2021, 32, e2675.  | 1.4  | 9         |
| 6  | Addressing data integration challenges to link ecological processes across scales. <i>Frontiers in Ecology and the Environment</i> , 2021, 19, 30-38.   | 4.0  | 74        |
| 7  | Working across space and time: nonstationarity in ecological research and application. <i>Frontiers in Ecology and the Environment</i> , 2021, 19, 66-72.   | 4.0  | 69        |
| 8  | Integrating automated acoustic vocalization data and point count surveys for estimation of bird abundance. <i>Methods in Ecology and Evolution</i> , 2021, 12, 1040-1049.                           | 5.2  | 14        |
| 9  | Trends in bird abundance differ among protected forests but not bird guilds. <i>Ecological Applications</i> , 2021, 31, e02377.   | 3.8  | 6         |
| 10 | Over half of western United States' most abundant tree species in decline. <i>Nature Communications</i> , 2021, 12, 451.  | 12.8 | 48        |
| 11 | Estimating timber volume loss due to storm damage in Carinthia, Austria, using ALS/TLS and spatial regression models. <i>Forest Ecology and Management</i> , 2021, 502, 119714.                     | 3.2  | 4         |
| 12 | Bayesian spatially varying coefficient models in the spBayes R package. <i>Environmental Modelling and Software</i> , 2020, 125, 104608.  | 4.5  | 18        |
| 13 | Complementary strengths of spatially-explicit and multi-species distribution models. <i>Ecography</i> , 2020, 43, 456-466.  | 4.5  | 11        |
| 14 | Introduction to Bayesian Methods in Ecology and Natural Resources. , 2020, , .  |      | 6         |
| 15 | Environmental controls on Landsat-derived phenoregions across an East African megatransect. <i>Ecosphere</i> , 2020, 11, e03143.  | 2.2  | 4         |
| 16 | Assessing soundscape disturbance through hierarchical models and acoustic indices: A case study on a shelterwood logged northern Michigan forest. <i>Ecological Indicators</i> , 2020, 113, 106244. | 6.3  | 15        |
| 17 | rFIA: An R package for estimation of forest attributes with the US Forest Inventory and Analysis database. <i>Environmental Modelling and Software</i> , 2020, 127, 104664.                         | 4.5  | 81        |
| 18 | Characterizing functional relationships between anthropogenic and biological sounds: a western New York state soundscape case study. <i>Landscape Ecology</i> , 2020, 35, 689-707.                  | 4.2  | 8         |

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|----|--|------|-----------|
| 19 | Beyond counts and averages: Relating geodiversity to dimensions of biodiversity. <i>Global Ecology and Biogeography</i> , 2020, 29, 696-710.   | 5.8  | 29        |
| 20 | Remote Sensing of Geodiversity as a Link to Biodiversity. , 2020, , 225-253.   |      | 4         |
| 21 | Spatial Linear Models. , 2020, , 155-174.  |      | 0         |
| 22 | Towards connecting biodiversity and geodiversity across scales with satellite remote sensing. <i>Global Ecology and Biogeography</i> , 2019, 28, 548-556.  | 5.8  | 87        |
| 23 | A Case Study Competition Among Methods for Analyzing Large Spatial Data. <i>Journal of Agricultural, Biological, and Environmental Statistics</i> , 2019, 24, 398-425.   | 1.4  | 216       |
| 24 | Boreal tree growth exhibits decadal-scale ecological memory to drought and insect defoliation, but no negative response to their interaction. <i>Journal of Ecology</i> , 2019, 107, 1288-1301.                | 4.0  | 49        |
| 25 | Efficient Algorithms for Bayesian Nearest Neighbor Gaussian Processes. <i>Journal of Computational and Graphical Statistics</i> , 2019, 28, 401-414.   | 1.7  | 71        |
| 26 | Spatial Factor Models for High-Dimensional and Large Spatial Data: An Application in Forest Variable Mapping. <i>Statistica Sinica</i> , 2019, 29, 1155-1180.  | 0.3  | 13        |
| 27 | Regional-based mitigation to reduce wildlife-vehicle collisions. <i>Journal of Wildlife Management</i> , 2018, 82, 756-765.  | 1.8  | 9         |
| 28 | Assessing impact of exogenous features on biotic phenomena in the presence of strong spatial dependence: A lake sturgeon case study in natural stream settings. <i>PLoS ONE</i> , 2018, 13, e0204150.          | 2.5  | 6         |
| 29 | Geostatistical estimation of forest biomass in interior Alaska combining Landsat-derived tree cover, sampled airborne lidar and field observations. <i>Remote Sensing of Environment</i> , 2018, 212, 212-230. | 11.0 | 39        |
| 30 | Variable effects of climate on forest growth in relation to climate extremes, disturbance, and forest dynamics. <i>Ecological Applications</i> , 2017, 27, 1082-1095.  | 3.8  | 27        |
| 31 | Joint hierarchical models for sparsely sampled high-dimensional LiDAR and forest variables. <i>Remote Sensing of Environment</i> , 2017, 190, 149-161.   | 11.0 | 8         |
| 32 | A model-based approach to wildland fire reconstruction using sediment charcoal records. <i>Environmetrics</i> , 2017, 28, e2450.   | 1.4  | 9         |
| 33 | Spatial Variation in Nutrient and Water Color Effects on Lake Chlorophyll at Macroscales. <i>PLoS ONE</i> , 2016, 11, e0164592.  | 2.5  | 18        |
| 34 | Observation-based blended projections from ensembles of regional climate models. <i>Climatic Change</i> , 2016, 138, 55-69.  | 3.6  | 5         |
| 35 | Seedling survival responses to conspecific density, soil nutrients, and irradiance vary with age in a tropical forest. <i>Ecology</i> , 2016, 97, 2406-2415.   | 3.2  | 25        |
| 36 | Modeling forest biomass and growth: Coupling long-term inventory and LiDAR data. <i>Remote Sensing of Environment</i> , 2016, 182, 1-12.   | 11.0 | 36        |

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|----|--|------|-----------|
| 37 | On nearest-neighbor Gaussian process models for massive spatial data. Wiley Interdisciplinary Reviews: Computational Statistics, 2016, 8, 162-171.   | 3.9  | 44        |
| 38 | Nonseparable dynamic nearest neighbor Gaussian process models for large spatio-temporal data with an application to particulate matter analysis. Annals of Applied Statistics, 2016, 10, 1286-1316.  | 1.1  | 73        |
| 39 | Synergistic effects of climate and land cover: grassland birds are more vulnerable to climate change. Landscape Ecology, 2016, 31, 2275-2290.  | 4.2  | 33        |
| 40 | Predicting tree biomass growth in the temperate-boreal ecotone: Is tree size, age, competition, or climate response most important?. Global Change Biology, 2016, 22, 2138-2151.   | 9.5  | 71        |
| 41 | Hierarchical Nearest-Neighbor Gaussian Process Models for Large Geostatistical Datasets. Journal of the American Statistical Association, 2016, 111, 800-812.  | 3.1  | 335       |
| 42 | Spatial scaling of temporal changes in avian communities. Global Ecology and Biogeography, 2015, 24, 1236-1248.  | 5.8  | 9         |
| 43 | Linear Models for Airborne-Laser-Scanning-Based Operational Forest Inventory With Small Field Sample Size and Highly Correlated LiDAR Data. IEEE Transactions on Geoscience and Remote Sensing, 2015, 53, 5600-5612.                               | 6.3  | 23        |
| 44 | Landscape fragmentation affects responses of avian communities to climate change. Global Change Biology, 2015, 21, 2942-2953.  | 9.5  | 29        |
| 45 | LiDAR based prediction of forest biomass using hierarchical models with spatially varying coefficients. Remote Sensing of Environment, 2015, 169, 113-127.   | 11.0 | 40        |
| 46 | Spatial Analysis of Anthropogenic Landscape Disturbance and Buruli Ulcer Disease in Benin. PLoS Neglected Tropical Diseases, 2015, 9, e0004123.  | 3.0  | 10        |
| 47 | spBayes for Large Univariate and Multivariate Point-Referenced Spatio-Temporal Data Models. Journal of Statistical Software, 2015, 63, .   | 3.7  | 85        |
| 48 | Approaches to advance scientific understanding of macrosystems ecology. Frontiers in Ecology and the Environment, 2014, 12, 15-23.   | 4.0  | 57        |
| 49 | Bayesian hierarchical models for spatially misaligned data in R. Methods in Ecology and Evolution, 2014, 5, 514-523.   | 5.2  | 16        |
| 50 | Accounting for the space-varying nature of the relationships between temporal community turnover and the environment. Ecography, 2014, 37, 1073-1083.  | 4.5  | 10        |
| 51 | Integrating forest inventory and analysis data into a LiDAR-based carbon monitoring system. Carbon Balance and Management, 2014, 9, 3.   | 3.2  | 26        |
| 52 | Dynamic spatial regression models for space-varying forest stand tables. Environmetrics, 2014, 25, 596-609.  | 1.4  | 8         |
| 53 | Editors Are Editors, Not Oracles. Bulletin of the Ecological Society of America, 2014, 95, 342-346.  | 0.2  | 2         |
| 54 | Hierarchical Bayesian spatial models for predicting multiple forest variables using waveform LiDAR, hyperspectral imagery, and large inventory datasets. International Journal of Applied Earth Observation and Geoinformation, 2013, 22, 147-160. | 2.8  | 18        |

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|----|---|------|-----------|
| 55 | Strategies for minimizing sample size for use in airborne LiDAR-based forest inventory. <i>Forest Ecology and Management</i> , 2013, 292, 75-85.  | 3.2  | 37        |
| 56 | Spatial regression methods capture prediction uncertainty in species distribution model projections through time. <i>Global Ecology and Biogeography</i> , 2013, 22, 242-251.   | 5.8  | 29        |
| 57 | Should species distribution models account for spatial autocorrelation? A test of model projections across eight millennia of climate change. <i>Global Ecology and Biogeography</i> , 2013, 22, 760-771.                 | 5.8  | 67        |
| 58 | Modeling Complex Spatial Dependencies: Low-Rank Spatially Varying Cross-Covariances With Application to Soil Nutrient Data. <i>Journal of Agricultural, Biological, and Environmental Statistics</i> , 2013, 18, 274-298. | 1.4  | 14        |
| 59 | Multivariate Spatial Regression Models for Predicting Individual Tree Structure Variables Using LiDAR Data. <i>IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing</i> , 2013, 6, 6-14.      | 4.9  | 23        |
| 60 | Tropical tree growth is correlated with soil phosphorus, potassium, and calcium, though not for legumes. <i>Ecological Monographs</i> , 2012, 82, 189-203.  | 5.4  | 128       |
| 61 | Approximate Bayesian inference for large spatial datasets using predictive process models. <i>Computational Statistics and Data Analysis</i> , 2012, 56, 1362-1380.   | 1.2  | 47        |
| 62 | An analysis of asthma hospitalizations, air pollution, and weather conditions in Los Angeles County, California. <i>Science of the Total Environment</i> , 2012, 425, 110-118.  | 8.0  | 65        |
| 63 | Bayesian dynamic modeling for large space-time datasets using Gaussian predictive processes. <i>Journal of Geographical Systems</i> , 2012, 14, 29-47.  | 3.1  | 39        |
| 64 | Comparing spatially-varying coefficients models for analysis of ecological data with non-stationary and anisotropic residual dependence. <i>Methods in Ecology and Evolution</i> , 2011, 2, 143-154.                      | 5.2  | 125       |
| 65 | Improving Crop Model Inference Through Bayesian Melding With Spatially Varying Parameters. <i>Journal of Agricultural, Biological, and Environmental Statistics</i> , 2011, 16, 453-474.                                  | 1.4  | 7         |
| 66 | Comparing and Blending Regional Climate Model Predictions for the American Southwest. <i>Journal of Agricultural, Biological, and Environmental Statistics</i> , 2011, 16, 586-605.                                       | 1.4  | 19        |
| 67 | Adaptive Gaussian predictive process models for large spatial datasets. <i>Environmetrics</i> , 2011, 22, 997-1007.   | 1.4  | 37        |
| 68 | Variational Bayesian methods for spatial data analysis. <i>Computational Statistics and Data Analysis</i> , 2011, 55, 3197-3217.  | 1.2  | 18        |
| 69 | A Hierarchical Model for Quantifying Forest Variables Over Large Heterogeneous Landscapes With Uncertain Forest Areas. <i>Journal of the American Statistical Association</i> , 2011, 106, 31-48.                         | 3.1  | 28        |
| 70 | Spatial Modelling of Car Ownership Data: A Case Study from the United Kingdom. <i>Applied Spatial Analysis and Policy</i> , 2010, 3, 45-65.   | 2.0  | 8         |
| 71 | Nonlinear hierarchical models for predicting cover crop biomass using Normalized Difference Vegetation Index. <i>Remote Sensing of Environment</i> , 2010, 114, 2833-2840.  | 11.0 | 28        |
| 72 | Hierarchical Spatial Process Models for Multiple Traits in Large Genetic Trials. <i>Journal of the American Statistical Association</i> , 2010, 105, 506-521.   | 3.1  | 44        |

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|----|---|-----|-----------|
| 73 | Hierarchical Spatial Modeling of Additive and Dominance Genetic Variance for Large Spatial Trial Datasets. <i>Biometrics</i> , 2009, 65, 441-451.   | 1.4 | 20        |
| 74 | Improving the performance of predictive process modeling for large datasets. <i>Computational Statistics and Data Analysis</i> , 2009, 53, 2873-2884.                                       | 1.2 | 168       |
| 75 | Hierarchical spatial models for predicting tree species assemblages across large domains. <i>Annals of Applied Statistics</i> , 2009, 3, 1052-1079.   | 1.1 | 39        |
| 76 | A Bayesian approach to multi-source forest area estimation. <i>Environmental and Ecological Statistics</i> , 2008, 15, 241-258.   | 3.5 | 28        |
| 77 | Hierarchical multiresolution approaches for dense point-level breast cancer treatment data. <i>Computational Statistics and Data Analysis</i> , 2008, 52, 2650-2668.                        | 1.2 | 5         |
| 78 | Bayesian multivariate process modeling for prediction of forest attributes. <i>Journal of Agricultural, Biological, and Environmental Statistics</i> , 2008, 13, 60-83.                     | 1.4 | 34        |
| 79 | Gaussian Predictive Process Models for Large Spatial Data Sets. <i>Journal of the Royal Statistical Society Series B: Statistical Methodology</i> , 2008, 70, 825-848.                      | 2.2 | 673       |
| 80 | Bayesian multi-resolution modeling for spatially replicated data sets with application to forest biomass data. <i>Journal of Statistical Planning and Inference</i> , 2007, 137, 3193-3205. | 0.6 | 12        |
| 81 | <b>spBayes</b> : An R Package for Univariate and Multivariate Hierarchical Point-referenced Spatial Models. <i>Journal of Statistical Software</i> , 2007, 19, 1-24.                        | 3.7 | 158       |