# Daniel Wallach

List of Publications by Year
in descending order



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|---|---|---|---|
| 118 papers | 10,553 citations | 76294 40 h-index | 33869 99 g-index |
| 127 all docs | 127 docs citations | 127 times ranked | 8894 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | A traitâ€based model ensemble approach to design rice plant types for future climate. Global Change Biology, 2022, 28, 2689-2710. | 4.2 | 8 |
| 2 | Decomposing crop model uncertainty: A systematic review. Field Crops Research, 2022, 279, 108448. | 2.3 | 29 |
| 3 | Multi-model evaluation of phenology prediction for wheat in Australia. Agricultural and Forest Meteorology, 2021, 298-299, 108289. | 1.9 | 17 |
| 4 | How well do crop modeling groups predict wheat phenology, given calibration data from the target population?. European Journal of Agronomy, 2021, 124, 126195. | 1.9 | 27 |
| 5 | The chaos in calibrating crop models: Lessons learned from a multi-model calibration exercise. Environmental Modelling and Software, 2021, 145, 105206. | 1.9 | 31 |
| 6 | Evaluation of crop model prediction and uncertainty using Bayesian parameter estimation and Bayesian model averaging. Agricultural and Forest Meteorology, 2021, 311, 108686. | 1.9 | 13 |
| 7 | Comparison of three calibration methods for modeling rice phenology. Agricultural and Forest Meteorology, 2020, 280, 107785. | 1.9 | 40 |
| 8 | A new approach to crop model calibration: Phenotyping plus postâ€processing. Crop Science, 2020, 60, 709-720. | 0.8 | 12 |
| 9 | Importance of genetic parameters and uncertainty of MANIHOT, a new mechanistic cassava simulation model. European Journal of Agronomy, 2020, 115, 126031. | 1.9 | 12 |
| 10 | A SIMPLE crop model. European Journal of Agronomy, 2019, 104, 97-106. | 1.9 | 67 |
| 11 | Global wheat production with 1.5 and 2.0Â°C above preâ€industrial warming. Global Change Biology, 2019, 25, 1428-1444. | 4.2 | 107 |
| 12 | Climate change impact and adaptation for wheat protein. Global Change Biology, 2019, 25, 155-173. | 4.2 | 312 |
| 13 | Basics of Agricultural System Models. , 2019, , 3-43. | | 5 |
| 14 | Regression Analysis, Frequentist. , 2019, , 161-205. | | 0 |
| 15 | Model Evaluation. , 2019, , 311-373. | | 3 |
| 16 | Multimodel Ensembles. , 2019, , 425-443. | | 0 |
| 17 | Gene-Based Crop Models. , 2019, , 445-486. | | 0 |
| 18 | Calibration of System Models. , 2019, , 251-274. | | 0 |

| # | ARTICLE | IF | CITATIONS |
|---|---|---|---|
| 19 | Parameter Estimation With Bayesian Methods. , 2019, , 275-309. | | 1 |
| 20 | Data requirements for crop modellingâ€"Applying the learning curve approach to the simulation of winter wheat flowering time under climate change. European Journal of Agronomy, 2018, 95, 33-44. | 1.9 | 6 |
| 21 | Towards improved calibration of crop models â€" Where are we now and where should we go?. European Journal of Agronomy, 2018, 94, 25-35. | 1.9 | 113 |
| 22 | Uncertainty in wheat phenology simulation induced by cultivar parameterization under climate warming. European Journal of Agronomy, 2018, 94, 46-53. | 1.9 | 31 |
| 23 | Improving the use of crop models for risk assessment and climate change adaptation. Agricultural Systems, 2018, 159, 296-306. | 3.2 | 122 |
| 24 | Diverging importance of drought stress for maize and winter wheat in Europe. Nature Communications, 2018, 9, 4249. | 5.8 | 230 |
| 25 | A dynamic model with QTL covariables for predicting flowering time of common bean (Phaseolus) Tj ETQq1 1 0.784314 rgBT /Overlock | 1.9 | 23 |
| 26 | Multimodel ensembles improve predictions of cropâ€"environmentâ€"management interactions. Global Change Biology, 2018, 24, 5072-5083. | 4.2 | 111 |
| 27 | Crop model improvement reduces the uncertainty of the response to temperature of multi-model ensembles. Field Crops Research, 2017, 202, 5-20. | 2.3 | 109 |
| 28 | The uncertainty of crop yield projections is reduced by improved temperature response functions. Nature Plants, 2017, 3, 17102. | 4.7 | 170 |
| 29 | The implication of input data aggregation on up-scaling soil organic carbon changes. Environmental Modelling and Software, 2017, 96, 361-377. | 1.9 | 28 |
| 30 | Temperature increase reduces global yields of major crops in four independent estimates. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 9326-9331. | 3.3 | 1,708 |
| 31 | Accounting for both parameter and model structure uncertainty in crop model predictions of phenology: A case study on rice. European Journal of Agronomy, 2017, 88, 53-62. | 1.9 | 53 |
| 32 | Causes of variation among rice models in yield response to CO2 examined with Free-Air CO2 Enrichment and growth chamber experiments. Scientific Reports, 2017, 7, 14858. | 1.6 | 41 |
| 33 | Impact of Spatial Soil and Climate Input Data Aggregation on Regional Yield Simulations. PLoS ONE, 2016, 11, e0151782. | 1.1 | 78 |
| 34 | Multi-wheat-model ensemble responses to interannual climate variability. Environmental Modelling and Software, 2016, 81, 86-101. | 1.9 | 50 |
| 35 | Estimating model prediction error: Should you treat predictions as fixed or random?. Environmental Modelling and Software, 2016, 84, 529-539. | 1.9 | 27 |
| 36 | Uncertainty of wheat water use: Simulated patterns and sensitivity to temperature and CO2. Field Crops Research, 2016, 198, 80-92. | 2.3 | 47 |

| # | Article | IF | Citations |
|---|---|---|---|
| 37 | A taxonomy-based approach to shed light on the babel of mathematical models for rice simulation. Environmental Modelling and Software, 2016, 85, 332-341. | 1.9 | 18 |
| 38 | Lessons from climate modeling on the design and use of ensembles for crop modeling. Climatic Change, 2016, 139, 551-564. | 1.7 | 66 |
| 39 | Similar estimates of temperature impacts on global wheat yield by three independent methods. Nature Climate Change, 2016, 6, 1130-1136. | 8.1 | 352 |
| 40 | Uncertainty in future irrigation water demand and risk of crop failure for maize in Europe. Environmental Research Letters, 2016, 11, 074007. | 2.2 | 37 |
| 41 | Spatial sampling of weather data for regional crop yield simulations. Agricultural and Forest Meteorology, 2016, 220, 101-115. | 1.9 | 35 |
| 42 | Evaluating the precision of eight spatial sampling schemes in estimating regional means of simulated yield for two crops. Environmental Modelling and Software, 2016, 80, 100-112. | 1.9 | 26 |
| 43 | Crop modelling for integrated assessment of risk to food production from climate change. Environmental Modelling and Software, 2015, 72, 287-303. | 1.9 | 230 |
| 44 | Calibration of the phenology sub-model of APSIM-Oryza: Going beyond goodness of fit. Environmental Modelling and Software, 2015, 70, 128-137. | 1.9 | 27 |
| 45 | Developing skills: how to train adaptive modelers. Advances in Animal Biosciences, 2015, 6, 52-53. | 1.0 | 0 |
| 46 | A statistical analysis of three ensembles of crop model responses to temperature and CO2 concentration. Agricultural and Forest Meteorology, 2015, 214-215, 483-493. | 1.9 | 31 |
| 47 | Uncertainty in Agricultural Impact Assessment. ICP Series on Climate Change Impacts, Adaptation, and Mitigation, 2015, , 223-259. | 0.4 | 8 |
| 48 | Uncertainties in Scaling-Up Crop Models for Large-Area Climate Change Impact Assessments. ICP Series on Climate Change Impacts, Adaptation, and Mitigation, 2015, , 261-277. | 0.4 | 11 |
| 49 | Rising temperatures reduce global wheatÂproduction. Nature Climate Change, 2015, 5, 143-147. | 8.1 | 1,544 |
| 50 | Multimodel ensembles of wheat growth: many models are better than one. Global Change Biology, 2015, 21, 911-925. | 4.2 | 387 |
| 51 | Effect of weather data aggregation on regional crop simulation for different crops, production conditions, and response variables. Climate Research, 2015, 65, 141-157. | 0.4 | 43 |
| 52 | Variability of effects of spatial climate data aggregation on regional yield simulation by crop models. Climate Research, 2015, 65, 53-69. | 0.4 | 39 |
| 53 | Parameter Estimation with Bayesian Methods. , 2014, , 277-309. | | 1 |
| 54 | The error in agricultural systems model prediction depends on the variable being predicted. Environmental Modelling and Software, 2014, 62, 487-494. | 1.9 | 11 |

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| 55 | Combining input uncertainty and residual error in crop model predictions: A case study on vineyards. European Journal of Agronomy, 2014, 52, 191-197. | 1.9 | 23 |
| 56 | Parameter Estimation with Classical Methods (Model Calibration). , 2014, , 205-276. | | 2 |
| 57 | Model Evaluation. , 2014, , 345-406. | | 13 |
| 58 | Predicting Maize Phenology: Intercomparison of Functions for Developmental Response to Temperature. Agronomy Journal, 2014, 106, 2087-2097. | 0.9 | 112 |
| 59 | Uncertainty in simulating wheat yields under climate change. Nature Climate Change, 2013, 3, 827-832. | 8.1 | 1,021 |
| 60 | Modelling climate change impact on Septoria tritici blotch (STB) in France: Accounting for climate model and disease model uncertainty. Agricultural and Forest Meteorology, 2013, 170, 242-252. | 1.9 | 41 |
| 61 | The Agricultural Model Intercomparison and Improvement Project (AgMIP): Protocols and pilot studies. Agricultural and Forest Meteorology, 2013, 170, 166-182. | 1.9 | 715 |
| 62 | An open platform to build, evaluate and simulate integrated models of farming and agro-ecosystems. Environmental Modelling and Software, 2013, 39, 39-49. | 1.9 | 87 |
| 63 | Assessing the Uncertainty when Using a Model to Compare Irrigation Strategies. Agronomy Journal, 2012, 104, 1274-1283. | 0.9 | 39 |
| 64 | Crop Model Calibration: A Statistical Perspective. Agronomy Journal, 2011, 103, 1144-1151. | 0.9 | 55 |
| 65 | Methodological comparison of calibration procedures for durum wheat parameters in the STICS model. European Journal of Agronomy, 2011, 35, 115-126. | 1.9 | 39 |
| 66 | Using a cropping system model at regional scale: Low-data approaches for crop management information and model calibration. Agriculture, Ecosystems and Environment, 2011, 142, 85-94. | 2.5 | 90 |
| 67 | A package of parameter estimation methods and implementation for the STICS crop-soil model. Environmental Modelling and Software, 2011, 26, 386-394. | 1.9 | 53 |
| 68 | A Component-Based Framework for Simulating Agricultural Production and Externalities. , 2010, , 63-108. | | 23 |
| 69 | Spatialising Crop Models. , 2009, , 687-705. | | 7 |
| 70 | A bayesian approach to crop Model calibration under unknown error covariance. Journal of Agricultural, Biological, and Environmental Statistics, 2008, 13, 355-365. | 0.7 | 5 |
| 71 | Adaptation of a functional model of grassland to simulate the behaviour of irrigated grasslands under a Mediterranean climate: The Crau case. European Journal of Agronomy, 2008, 29, 163-174. | 1.9 | 10 |
| 72 | ESTIMATING SOIL CARBON LEVELS USING AN ENSEMBLE KALMAN FILTER. Transactions of the American Society of Agricultural Engineers, 2004, 47, 331-339. | 0.9 | 17 |

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|---|---|---|---|
| 73 | Spatialising crop models. Agronomy for Sustainable Development, 2004, 24, 205-217. | 0.8 | 78 |
| 74 | Comparison of parameter estimation methods for crop models. Agronomy for Sustainable Development, 2004, 24, 351-365. | 0.8 | 45 |
| 75 | Evaluating optimal fertilizer rates using plant measurements. Journal of Applied Statistics, 2002, 29, 1083-1099. | 0.6 | 1 |
| 76 | Improving irrigation schedules by using a biophysical and a decisional model. European Journal of Agronomy, 2002, 16, 123-135. | 1.9 | 43 |
| 77 | It pays to base parameter estimation on a realistic description of model errors. Agronomy for Sustainable Development, 2002, 22, 179-189. | 0.8 | 16 |
| 78 | Parameter estimation in crop models: exploring the possibility of estimating linear combinations of parameters. Agronomy for Sustainable Development, 2002, 22, 171-178. | 0.8 | 3 |
| 79 | Optimal experimental designs for estimating model parameters, applied to yield response to nitrogen models. Agronomy for Sustainable Development, 2002, 22, 229-238. | 0.8 | 8 |
| 80 | The effect of parameter uncertainty on a model with adjusted parameters. Agronomy for Sustainable Development, 2002, 22, 159-170. | 0.8 | 8 |
| 81 | Using a Bayesian approach to parameter estimation; comparison of the GLUE and MCMC methods. Agronomy for Sustainable Development, 2002, 22, 191-203. | 0.8 | 124 |
| 82 | MODERATO: an object-oriented decision tool for designing maize irrigation schedules. Ecological Modelling, 2001, 137, 43-60. | 1.2 | 69 |
| 83 | Statistical Methods for Predicting Responses to Applied Nitrogen and Calculating Optimal Nitrogen Rates. Agronomy Journal, 2001, 93, 531-539. | 0.9 | 27 |
| 84 | Parameter Estimation for Crop Models. Agronomy Journal, 2001, 93, 757-766. | 0.9 | 108 |
| 85 | How to improve model-based decision rules for nitrogen fertilization. European Journal of Agronomy, 2001, 15, 197-208. | 1.9 | 11 |
| 86 | Evaluating Decision Rules for Nitrogen Fertilization. Biometrics, 2000, 56, 420-426. | 0.8 | 6 |
| 87 | Models of Yield, Grain Protein, and Residual Mineral Nitrogen Responses to Applied Nitrogen for Winter Wheat. Agronomy Journal, 1999, 91, 377-385. | 0.9 | 62 |
| 88 | Evaluation of CECOL, a model of winter rape (Brassica napus L.). European Journal of Agronomy, 1998, 8, 205-214. | 1.9 | 11 |
| 89 | Effect of uncertainty in input and parameter values on model prediction error. Ecological Modelling, 1998, 105, 337-345. | 1.2 | 25 |
| 90 | Optimise importance sampling quantile estimation. Biometrika, 1996, 83, 791-800. | 1.3 | 8 |

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|---|---|---|---|
| 91 | Regional Optimization of Fertilization Using a Hierarchical Linear Model. Biometrics, 1995, 51, 338. | 0.8 | 10 |
| 92 | Mean Squared Error of Yield Prediction by SOYGRO. Agronomy Journal, 1995, 87, 397-402. | 0.9 | 11 |
| 93 | Empirical Bayes optimal fertilizer decisions. Journal of Applied Statistics, 1995, 22, 507-516. | 0.6 | 5 |
| 94 | Shrinkage Estimators Applied to Prediction of French Winter Wheat Yield. Biometrics, 1993, 49, 281. | 0.8 | 6 |
| 95 | PrÃ©vision des livraisons de maÃ¯s pour une coopÃ©rative agricole. Agronomy for Sustainable Development, 1992, 12, 631-637. | 0.8 | 0 |
| 96 | Utilisation de Donnees Intermediaires pour Corriger la Prediction de Modeles Mecanistes. Biometrics, 1991, 47, 1. | 0.8 | 12 |
| 97 | Modeling the Time Dependence of Nitrogen Uptake in Young Trees. Agronomy Journal, 1990, 82, 1135-1140. | 0.9 | 6 |
| 98 | Mean squared error of prediction as a criterion for evaluating and comparing system models. Ecological Modelling, 1989, 44, 299-306. | 1.2 | 231 |
| 99 | The calculation of herbage intake of grazing sheep: A detailed comparison between models. Agricultural Systems, 1988, 26, 123-160. | 3.2 | 19 |
| 100 | AGROBASE : un systÃ¨me de gestion de donnÃ©es expÃ©rimentales. Agronomy for Sustainable Development, 1987, 7, 739-742. | 0.8 | 1 |
| 101 | Weight gain in grazing sheep: A detailed comparison between models. Agricultural Systems, 1986, 19, 211-248. | 3.2 | 4 |
| 102 | Maintenance energy requirements of grazing sheep: A detailed comparison between models. Agricultural Systems, 1984, 15, 1-22. | 3.2 | 10 |
| 103 | Effects of fruiting form removal on cotton reproductive development. Field Crops Research, 1982, 5, 69-84. | 2.3 | 23 |
| 104 | Prediction of Boll Opening in a Cotton Crop 1. Agronomy Journal, 1981, 73, 763-767. | 0.9 | 1 |
| 105 | An empirical mathematical model of a cotton crop subjected to damage. Field Crops Research, 1980, 3, 7-25. | 2.3 | 10 |
| 106 | Primary production of grazed annual natural pasture and of grazed wheat in a semi-arid region of Israel. Agricultural Systems, 1978, 3, 205-220. | 3.2 | 6 |
| 107 | The relation of cotton crop growth and development to final yield. Field Crops Research, 1978, 1, 283-294. | 2.3 | 3 |
| 108 | A simple model of cotton yield development. Field Crops Research, 1978, 1, 269-281. | 2.3 | 8 |

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| 109 | Environment-dependent logistic equations applied to natural pasture growth curves. Agricultural Meteorology, 1976, 16, 389-404. | 0.7 | 8 |
| 110 | The effect of environmental factors on the growth of a natural pasture. Agricultural Meteorology, 1975, 15, 231-244. | 0.7 | 6 |
| 111 | Nearâ€Resonant Electronic Energy Transfer from Argon to Hydrogen. Journal of Chemical Physics, 1972, 56, 3608-3618. | 1.2 | 49 |
| 112 | Interaction Potential between Ground State Helium Atom and theB1Î£u+State of the Hydrogen Molecule. Journal of Chemical Physics, 1972, 56, 1219-1223. | 1.2 | 30 |
| 113 | Role of Spin Symmetry Conversion in Nuclear Relaxation in Solids. Journal of Chemical Physics, 1971, 54, 4044-4049. | 1.2 | 20 |
| 114 | Nuclear Relaxation in Solids due to Molecular Rotation at Low Temperatures. Journal of Chemical Physics, 1970, 52, 2534-2538. | 1.2 | 14 |
| 115 | Anisotropic Molecular Rotation in Liquid N,Nâ€Dimethylformamide by Nuclear Magnetic Resonance. Journal of Chemical Physics, 1969, 50, 1219-1227. | 1.2 | 100 |
| 116 | Effect of fast internal rotation on the nitrogen-14 nuclear magnetic resonance relaxation times of the methylbenzyl cyanides. The Journal of Physical Chemistry, 1969, 73, 307-312. | 2.9 | 19 |
| 117 | Effect of Internal Rotation on Angular Correlation Functions. Journal of Chemical Physics, 1967, 47, 5258-5268. | 1.2 | 342 |
| 118 | Providing User-Oriented Uncertainty Information with a Vineyard Model Used for Irrigation Decisions. Advances in Agricultural Systems Modeling, 0, , 183-207. | 0.3 | 2 |