

James H. Albert

Emeritus Distinguished University Professor

Department of Mathematics and Statistics, Bowling Green State University

albert@bgsu.edu · bayesball.github.io · 712 Sutton Place, Findlay, OH 45840

ACADEMIC POSITIONS & DEGREES

2020–present Emeritus Professor, Bowling Green State University

2018–2020 Professor, Bowling Green State University

1994–1995 Visiting Professor, Institute of Statistics and Decision Sciences, Duke University

1990–2018 Professor of Mathematics and Statistics, Bowling Green State University

1986–1987 Visiting Fellow, Faculty of Mathematical Studies, University of Southampton

1979–1985 Assistant Professor of Mathematics and Statistics, Bowling Green State University

Ph.D., Statistics, Purdue University, 1979 · M.S., Mathematical Statistics, Purdue University, 1977 · B.S., Mathematics, Bucknell University, 1975

HONORS & AWARDS

2018 Distinguished University Professor, Bowling Green State University

2015 Founders Award, American Statistical Association

2004 Significant Contributor to Statistics in Sports, ASA Section on Statistics in Sports

2001 The Sporting News–SABR Baseball Research Award for *Curve Ball*

2000 Fellow of the American Statistical Association

CITATION IMPACT

As of June 2024, publications have received **10,529 total citations (2,454 since 2019)**. The article “*Bayesian analysis of binary and polychotomous response data*” (JASA 1993, with S. Chib) has received **4,298 citations** and was ranked #13 among the most-cited statistics papers since 1993 (Ryan & Woodall, 2005, *Journal of Applied Statistics*).

BOOKS

Authored Books

2025 *Analyzing Baseball Data with R*, 3rd ed. (with B. Baumer & M. Marchi). CRC Press.

2019 *Probability and Bayesian Modeling* (with M. Hu). Chapman and Hall/CRC.

2017 *Visualizing Baseball*. CRC Press (ASA–CRC Series on Statistical Reasoning in Science and Society).

2017 *Teaching Statistics Using Baseball*, 2nd ed. Mathematical Association of America.

2013 *Analyzing Baseball Data with R*, 1st ed. (with M. Marchi). CRC Press. [2nd ed. with B. Baumer, 2019]

2011 *R by Example* (with M. Rizzo). Springer.

2011 *Data Analysis and Probability for Teachers*.

2009 *Bayesian Computation with R*, 2nd ed. Springer. [Japanese translation, 2010]

- 2003** *Teaching Statistics Using Baseball*. Mathematical Association of America.
- 2001** *Curve Ball: Baseball, Statistics, and the Role of Chance in the Game* (with J. Bennett). Copernicus Books. [Revised paperback, 2003; Japanese translation, 2004]
- 2001** *Workshop Statistics: Discovery with Data, A Bayesian Approach* (with A. J. Rossman). Key College Press.
- 1999** *Ordinal Data Modeling* (with V. Johnson). Springer-Verlag.
- 1996** *Bayesian Computation Using Minitab*. Duxbury Press.

Edited Volumes

- 2017** *Handbook of Statistics in Sports* (with M. Glickman, R. Koning & T. Swartz). CRC Press.
- 2017** *Anthology of Statistics in Sports II* (with J. Bennett & J. Cochran). Oxford University Press.
- 2007** *Statistical Thinking in Sports* (with R. Koning). CRC Press.
- 2005** *Anthology of Statistics in Sports* (with J. Bennett & J. Cochran). SIAM.

SELECTED PEER-REVIEWED JOURNAL ARTICLES

Highly cited and representative articles are listed first, followed by a full chronological list.

Highly Cited & Landmark Articles

- 1993** Albert, J. H. & Chib, S. Bayesian regression analysis of binary and polychotomous response data. *Journal of the American Statistical Association*, 88, 657–667. [**4,298 citations**]
- 1993** Albert, J. H. & Chib, S. Bayesian inference of autoregressive time series with mean and variance subject to Markov jumps. *Journal of Business and Economic Statistics*, 11, 1–15.
- 1997** Albert, J. H. & Chib, S. Bayesian tests and model diagnostics in conditionally independent hierarchical models. *Journal of the American Statistical Association*, 92, 916–925.
- 1997** Albert, J. H. & Chib, S. Bayesian testing and estimation of association in a two-way contingency table. *Journal of the American Statistical Association*, 92, 685–693.
- 1995** Albert, J. H. & Chib, S. Bayesian residual analysis for binary response regression models. *Biometrika*, 82, 747–759.
- 1992** Albert, J. H. Bayesian estimation of normal ogive response curves using Gibbs sampling. *Journal of Educational Statistics*, 17, 251–269.
- 1992** Albert, J. H. A Bayesian analysis of a Poisson random effects model for home run hitters. *The American Statistician*, 46, 246–253.
- 1994** Albert, J. H. Exploring baseball hitting data: what about those breakdown statistics? *Journal of the American Statistical Association*, 89, 1066–1074.

Journal Articles — Chronological

- 1981** Simultaneous estimation of Poisson means. *Journal of Multivariate Analysis*, 11, 400–417.
- 1981** Pseudo-Bayes estimation of multinomial proportions. *Communications in Statistics, A*, 10, 1587–1611.
- 1982** Mixtures of Dirichlet distributions and estimation in contingency tables (with A. K. Gupta). *Annals of Statistics*, 10, 1261–1268.
- 1983** Estimation in contingency tables using prior information (with A. K. Gupta). *Journal of the Royal Statistical Society, Series B*, 45, 60–69.
- 1983** Bayesian estimation methods for 2×2 contingency tables using mixtures of Dirichlet distributions (with A. K. Gupta). *Journal of the American Statistical Association*, 78, 708–717.

- 1984 Empirical Bayes estimation of a set of binomial probabilities. *Journal of Statistical Computation and Simulation*, 20, 129–144.
- 1985 Bayesian methods for binomial data with applications to a nonresponse problem (with A. K. Gupta). *Journal of the American Statistical Association*, 80, 167–173.
- 1987 Empirical Bayes estimation in contingency tables. *Communications in Statistics, A*, 16, 2459–2485.
- 1988 Computational methods using a Bayesian hierarchical generalized linear model. *Journal of the American Statistical Association*, 83, 1037–1045.
- 1989 Nuisance parameters and the use of exploratory graphical methods in a Bayesian analysis. *The American Statistician*, 43, 191–196.
- 1989 A Bayesian approach to some overdispersion models (with P. A. Pepple). *Canadian Journal of Statistics*, 17, 333–344.
- 1990 A Bayesian test for a two-way contingency table using independence priors. *Canadian Journal of Statistics*, 18, 347–363.
- 1992 Using a probability plot to summarize a unimodal posterior density. *Computational Statistics and Data Analysis*, 14, 193–205.
- 1992 A Bayesian analysis of a Poisson random effects model for home run hitters. *The American Statistician*, 46, 246–253.
- 1992 Bayesian estimation of normal ogive response curves using Gibbs sampling. *Journal of Educational Statistics*, 17, 251–269.
- 1993 Bayesian inference of autoregressive time series with mean and variance subject to Markov jumps (with S. Chib). *Journal of Business and Economic Statistics*, 11, 1–15.
- 1993 Bayesian regression analysis of binary and polychotomous response data (with S. Chib). *Journal of the American Statistical Association*, 88, 657–667.
- 1993 Teaching Bayesian statistics using sampling methods and MINITAB. *The American Statistician*, 47, 182–191.
- 1994 A Bayesian approach to estimation of GPAs of University of Iowa freshmen under order restrictions. *Journal of Educational Statistics*, 19, 1–22.
- 1994 Exploring baseball hitting data: what about those breakdown statistics? *Journal of the American Statistical Association*, 89, 1066–1074.
- 1995 Bayesian residual analysis for binary response regression models (with S. Chib). *Biometrika*, 82, 747–759.
- 1995 Teaching inference about proportions using Bayes and discrete models. *Journal of Statistical Education*, 3(3).
- 1996 A MCMC algorithm to fit a general exchangeable model. *Communications in Statistics — Simulation and Computation*, 25, 575–592.
- 1996 Bayesian selection of log-linear models. *Canadian Journal of Statistics*, 24, 327–347.
- 1997 Bayesian tests and model diagnostics in conditionally independent hierarchical models (with S. Chib). *Journal of the American Statistical Association*, 92, 916–925.
- 1997 Bayesian testing and estimation of association in a two-way contingency table. *Journal of the American Statistical Association*, 92, 685–693.
- 1997 Teaching Bayes' rule: a data-oriented approach. *The American Statistician*, 51, 247–253.
- 1998 The home run hitting of Mike Schmidt. *Chance*, 11, 3–11.
- 1999 Criticism of a hierarchical model using Bayes factors. *Statistics in Medicine*, 18(3), 287–305.
- 2000 Using a sample survey project to assess the Bayesian approach for teaching statistical inference. *Journal of Statistics Education*, 8(1).
- 2001 Using model/data simulations to detect streakiness (with P. Pepple). *The American Statistician*, 55, 41–50.
- 2001 Sequential ordinal modeling with applications to survival data (with S. Chib). *Biometrics*, 57(3).
- 2002 Teaching statistics using baseball. *Journal of Statistics Education*.
- 2003 Concepts of probability of college students. *The American Statistician*, 57.
- 2004 Streakiness in team performance. *Chance*, 17, 37–43.
- 2006 Pitching statistics, talent and luck, and the best strikeout seasons of all time. *Journal of Quantitative Analysis of Sports*, 2.
- 2007 Streaky hitting in baseball. *Journal of Quantitative Analysis of Sports*.

- 2009** Discrete Bayes with R. *Technology Innovations in Statistics Education*, 3(2).
- 2009** Comment on "Hierarchical Bayesian Modeling of Hitting Performance in Baseball" (with P. Birnbaum). *Bayesian Analysis*, 4(4), 653–660.
- 2010** Baseball data at season, play-by-play, and pitch-by-pitch levels. *Journal of Statistics Education*, 18(3).
- 2010** Using the count to measure pitching performance. *Journal of Quantitative Analysis of Sports*, 6(4).
- 2011** Discrepancy measures for item fit analysis in item response theory (with S. Toribio). *Journal of Statistical Computation and Simulation*.
- 2013** Using fun in the statistics classroom (with L. Lesser et al.). *Journal of Statistics Education*.
- 2013** Looking at spacings to assess streakiness. *Journal of Quantitative Analysis of Sports*, 9(2), 151–163.
- 2014** Streakiness in home run hitting. *CHANCE*, 27(3), 4–9.
- 2015** Beyond runs expectancy. *Journal of Sports Analytics*, 1, 1–16.
- 2015** Introduction to Bayesian item response modelling. *International Journal of Quantitative Research in Education*, 2(3–4), 178–193.
- 2015** Player evaluation using win probabilities in sports competitions. *Wiley Interdisciplinary Reviews: Computational Statistics*, 7(5), 316–325.
- 2016** Improved component predictions of batting and pitching measures. *Journal of Quantitative Analysis of Sports*, 12(2).
- 2017** A multilevel Bayesian approach for modelling server-specific time-to-serve in professional tennis (with S. Kovalchik). *Journal of Quantitative Analysis of Sports*, 13(2).
- 2017** The Do's and Don'ts of sports metrics: the Tennis ATP Leaderboard (with S. Kovalchik). *Chance*, February issue.
- 2018** Statistical modeling of sexual assault kit testing initiative case information (with J. Kerka et al.). *Journal of Forensic Sciences*, 63(4), 1122–1133.
- 2019** Developing statistical knowledge for teaching graphing of bivariate categorical data (with S. Casey & A. Ross). *Journal of Statistics Education*.
- 2019** Comparison of decision tree and logistic regression models for utilization in sexual assault kit processing (with J. Kerka et al.). *Journal of Forensic Sciences*.
- 2020** Online statistics teaching and learning (with M. Çetinkaya-Rundel & J. Hu). *Teaching and Learning Mathematics Online*, Chapman and Hall.
- 2020** Bayesian computing in the undergraduate statistics curriculum (with J. Hu). *Journal of Statistics Education*, 28(3), 236–247.
- 2020** The home run explosion. *Science Meets Sport*, Cambridge Scholars Publishing.
- 2023** Contributions of Carl Morris in sports analytics — a memoriam. *Journal of Quantitative Analysis in Sports*.

EDITORIAL & PROFESSIONAL SERVICE

- 2021–** Editor, *Journal of Sports Analytics*
- 2015–** Editor, *Chance Magazine*
- 2015–** Associate Editor, *Journal of Quantitative Analysis of Sports*
- 2011–2014** Executive Editor, *Journal of Quantitative Analysis of Sports*
- 2009–** Associate Editor, *Journal of Statistics Education*
- 2003–2005** Executive Editor, *The American Statistician*
- 1996–2002** Associate Editor, *Journal of the American Statistical Association*

STATISTICAL SOFTWARE & R PACKAGES

LearnBayes — R package to implement Bayesian calculations. Available on CRAN.

ProbBayes — R package companion to *Probability and Bayesian Modeling*. Available on CRAN.

CalledStrike — R package for collecting, manipulating, and visualizing Statcast pitch zone data.

ShinyBaseball — Collection of R Shiny apps for exploring baseball data.

LearnEDA — R package companion to the course on Exploratory Data Analysis.