### MICHAEL BRAUN

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## **Academic Appointments**

- Southern Methodist University, Cox School of Business
  - Marilyn and Leo F. Corrigan Research Professor, 2018-present
  - Associate Professor of Marketing, 2013-present
  - Donna Wilhelm Research Fellow, SMU DataArts, 2018-present
  - Fisher Faculty Fellow, 2016-2018
- Massachusetts Institute of Technology, MIT Sloan School of Management
  - Associate Professor of Management Science (Marketing Group), 2011-2013
  - Assistant Professor of Management Science (Marketing Group), 2006-2011
  - Homer A. Burnell (1928) Career Development Professor, 2008-2011
  - Affiliate Faculty, MIT Operations Research Center, 2006-2013
- Short-term appointments
  - University of Oxford, Saïd Business School, Visiting Professor, Trinity Term 2016
  - University of Queensland, Visiting Research Fellow, Spring 2016
  - Tilburg University, Visiting Scholar, Spring 2009
  - University of Michigan, Ross School of Business, Visiting Scholar, Fall 2008

#### Education

- University of Pennsylvania, Wharton School, Ph.D., Operations and Information Management, 2006
- Duke University, Fuqua School of Business, M.B.A., 1996
- Princeton University, A.B. with Honors in Economics, 1992

### **Publications**

- F. Feinberg, E. Bruch, M. Braun, B. H. Falk, N. Fefferman, E. M. Feit, J. Helveston, D. Larremore, B. B. McShane, A. Patania, and M. L. Small (2020). "Choices in Networks: A Research Framework." *Marketing Letters*. DOI:10.1007/s11002-020-09541-9.
- M. Braun and P. Damien (2019). "A Non-Markovian Method for Full Parametric Bayesian Inference." In: *Marketing and Big Data Technologies: New Trends and Applications*. Ed. by S. Tsafarakis and N. Matsatsinis. Springer-Verlag. In press.
- M. Braun, J. Rosenthal, and K. Therrian (2018). "Police Discretion and Racial Disparity in Organized Retail Theft Arrests: Evidence from Texas." *Journal of Empirical Legal Studies*, 15(4):916–950. DOI:10.1111/jels.12201.
- M. Braun (2017). "sparseHessianFD: Estimating Sparse Hessian Matrices in R." *Journal of Statistical Software*, 82(10):1–22. DOI:10.18637/jss.v082.i10.

 M. Braun and P. Damien (2016). "Scalable Rejection Sampling for Bayesian Hierarchical Models." *Marketing Science*, 35(3):427–444. DOI:10/b4bd.

- M. Braun, D. A. Schweidel, and E. M. Stein (2015). "Transaction Attributes and Customer Valuation." *Journal of Marketing Research*, 52(6):848–864. DOI:10/b4bb.
- M. Braun (2014). "trustOptim: An R Package for Trust Region Optimization with Sparse Hessians." *Journal of Statistical Software*, 60(4):1–16. DOI:10/b4bc.
- M. Braun and W. W. Moe (2013). "Online Display Advertising: Modeling the Effects of Multiple Creatives and Individual Impression Histories." *Marketing Science*, 32(5):753–767. DOI:10/b4bf.
- M. Braun and D. A. Schweidel (2011). "Modeling Customer Lifetimes with Multiple Causes of Churn." *Marketing Science*, 30(5):881–902. DOI:10/ddv975.
- M. Braun and A. Bonfrer (2011). "Scalable Inference of Customer Similarities from Interactions Data Using Dirichlet Processes." *Marketing Science*, 30(3):513–531. DOI:10/d4gjn9.
- M. Braun and J. McAuliffe (2010). "Variational Inference for Large-scale Models of Discrete Choice." *Journal of the American Statistical Association*, 105(489):324–335. DOI:10/crf3mc.
- G. L. Urban, J. R. Hauser, G. Liberali, M. Braun, and F. Sultan (2009). "Morph the Web to Build Empathy, Trust and Sales." *MIT Sloan Management Review*, 50(4):53–61. URL: http://tinyurl.com/morph2009smr.
- J. R. Hauser, G. L. Urban, G. Liberali, and M. Braun (2009). "Website Morphing." *Marketing Science*, 28(2):202–223. DOI:10/bqpzqr.
  - Finalist, ISMS Long-term Impact Award, 2017 and 2018
  - Finalist, John D. C. Little Award (best marketing paper in an INFORMS journal)
  - Lead article with commentaries
  - Top 50 Management article in 2009, Emerald Management Reviews
- M. Braun, P. S. Fader, E. T. Bradlow, and H. Kunreuther (2006). "Modeling the Pseudodeductible in Homeowners' Insurance." *Management Science*, 52(8):1258–1272. DOI:10/crg738.
  - Winner, Best Student Paper, INFORMS Decision Analysis Society, 2006
- M. Braun and A. Muermann (2004). "The Impact of Regret on the Demand for Insurance." *Journal of Risk and Insurance*, 71(4):737–767. DOI:10/cxbfkv.
  - Winner, 2014 Robert I. Mehr Award, American Risk and Insurance Association.

#### Software

(R packages are published at cran.r-project.org and github.com/braunm under open source licenses)

- *trustOptim* Trust Region Optimization for Objective Functions with Sparse Hessians. Version 0.8.6.2, updated Mar., 2018.
- *sparseHessianFD* Efficient Estimation of Sparse Hessians. Version 0.3.3.3, updated Mar., 2018.

 sparseMVN - Efficient Multivariate Normal Density and Sampling Functions for Sparse Covariance/Precision Matrices. Version 0.2.1.1, updated Mar., 2018.

• *bayesGDS* - Scalable Rejection Sampling from Posterior Densities of Bayesian Hierarchical Models. Version 0.6.1, updated Mar., 2015.

# Work in Progress

- "The A/B Test Deception: Divergent Delivery, Response Heterogeneity, and Erroneous Inferences from Online Advertising Field Experiments" (with Eric Schwartz).
- "Time-varying Effectiveness of Competitive Advertising" (with André Bonfrer).
- "sparseMVN: An R Package for Multivariate Normal Functions with Sparse Covariance and Precision Matrices."
- "The Normalizing Constant in the BG/BB Model" (with Dan McCarthy and Arun Gopalakrishnan).

#### Press

 "Commentary: Legislature Can Stop an Injustice by Redefining What Constitutes 'Organized Retail Theft'". Austin American-Statesman, May 13, 2019. https://tinyurl.com/BraunORToped

### Awards, Honors and Grants

- SMU Cox Media Expert of the Year, 2018
- Leo Corrigan Research Professor, 2018-present
- Donna Wilhelm Fellowship, SMU DataArts, 2018-present
- Finalist, ISMS Long-term Impact Award (for "Website Morphing"), 2017-2019
- Research grant, SMU University Research Council, 2017-18 (\$6,000)
- Research grant, Charles Koch Foundation Program on Criminal Justice and Policing Reform, 2017-2018 (\$18,880)
- Edwin L. Cox School of Business Research Excellence Award, 2016
- Fisher Faculty Fellowship, 2016-18
- SMU Emerging Leaders Seminar, 2016
- Fellow, Dedman College Interdisciplinary Institute, Southern Methodist University, 2015-16.
- Robert I. Mehr Award, for "a literature contribution which had a ten-year impact in the field of risk management and insurance." American Risk and Insurance Association, 2014
- Management Science Distinguished Service Award, 2013
- HP Labs Innovation Research Program, 2011-12 (\$35,000)
- MIT Sloan Course Development Grant, 2010-12 (\$10,000)

 Junior Faculty Research Assistance Program (\$25,000), MIT Sloan School of Management, 2010

- Finalist, John D. C. Little Award (best marketing paper in an INFORMS journal), for "Website Morphing," 2010
- Best Student Paper, INFORMS Decision Analysis Society, 2006
- Russell Ackoff Award for Research in Human Decision Processes, Wharton School, University of Pennsylvania, 2005
- Outstanding Doctoral Student Summer Research Grant (\$5,000), Wharton School, University of Pennsylvania, 2003
- Fuqua Scholar (top 10 percent at graduation), Fuqua School of Business, Duke University, 1996

### Conferences, Workshops and Presentations

- Invited discussant, UTD-FORMS Conference, Dallas, February 2020.
- Invited panel on Teaching Marketing Analytics: Sharing Experiences, Lessons,
  Recommendations. 2019 AMA Summer Academic Conference, Chicago, August 2019.
- INFORMS Marketing Science Conference, Rome, June 2019.
- 11th Triennial Invitational Choice Symposium, Workshop on Decision Processes in Networks, Cambridge, Md., May 2019.
- Texas House of Representatives, Committee on Criminal Jurisprudence, testimony on HB 4602 (Organized Retail Theft), April 2019.
- Invited presenter, Future of Policing webinar, Charles Koch Foundation Program on Criminal Justice Reform, April 2019.
- Organizer and host, 15th Marketing Dynamics Conference, Dallas, Texas, July 2018.
- AMA Marketing and Public Policy Conference, Columbus, Ohio, June 2018.
- Invited session (organizer and presenter) on Marketing Responses to Public Policy Crises, AMA Winter Academic Conference, New Orleans, La., February 2018.
- 12th Conference on Empirical Legal Studies, Cornell Law School, Ithaca, N.Y., October 2017.
- Invited discussant, 14th Marketing Dynamics Conference, Hong Kong, August 2017.
- INFORMS Marketing Science Conference, Los Angeles, June 2017.
- Invited discussant, Quantitative Marketing and Economics, Evanston, Ill., October 2016.
- UT-Arlington College of Business 50th Year Celebration Faculty Research Conference, Arlington, Texas, March 2016.
- Invited session on Revenue Management with Marketing Applications. INFORMS Annual Meeting, Philadelphia, November 2015.

 Invited session on Big Data of Customer Analytics in the Era of Social Media. Joint Statistical Meetings, Seattle, August 2015.

- Big Data Marketing Analytics Conference, Chicago, October 2014.
- Joint Statistical Meetings, Boston, Mass., August 2014.
- 11th Marketing Dynamics Conference, Las Vegas, August 2014.
- MSI Social Interactions Research Workshop, Boston, Mass., August 2013.
- Invited panel, Joint Statistical Meetings, Montréal, August 2013.
- INFORMS Marketing Science Conference, Istanbul, July 2013,
- Analytics Operations Engineering, Annual Meeting, Newport, R.I., May 2013.
- European Seminar on Bayesian Econometrics (ESOBE), WU-Vienna, November 2012.
- Invited session, INFORMS Annual Meeting, Phoenix, October 2012.
- Direct Marketing Educational Foundation Research Summit, Las Vegas, October 2012.
- Joint Statistical Meetings, San Diego, August 2012.
- International Society of Bayesian Analysis (ISBA) 2012 World Meeting, Kyoto, Japan, June 2012.
- INFORMS Marketing Science Conference, Boston, Mass., June 2012.
- CCCIS Industry Conference (data analytics and insurance), Jacksonville, Fla., May 2012.
- Direct Marketing Educational Foundation Professors' Institute, Dallas, Texas, 2012.
- Invited session, Parallel Computation for Bayesian Inference, Joint Statistical Meetings, Miami, 2011.
- Invited session, INFORMS Marketing Science Conference, Houston, June 2011.
- AMA Advanced Research Techniques Forum, Desert Springs, Calif., 2011.
- CEIBS Telecom Special Interest Forum, Shanghai, 2011
- Statistical Challenges in Electronic Commerce Research (SCECR), Austin, Texas, 2010
- Invited session, INFORMS Marketing Science Conference, Cologne, June 2010
- Invited session, INFORMS Marketing Science Conference, Ann Arbor, Michigan, June 2009
- Wharton Interactive Media Initiative conference on Modeling Social Network Data, Philadelphia, 2009.
- INFORMS Marketing Science Conference, Singapore, 2007.
- Invited seminars at Brigham Young University, University of California-Davis, Carnegie Mellon University, University of Chicago, Cornell University, Drexel University, Emory University, Erasmus University, Florida State University, Harvard University, University of Houston, Indiana University, INSEAD, University of Iowa, London Business School, University of Maryland, McGill University, University of Michigan, Monash

University, University of North Carolina, Northwestern University, The Ohio State University, University of Pennsylvania, The Pennsylvania State University, University of Pittsburgh, University of Queensland, Singapore Management University, Southern Methodist University, Stanford University, Temple University, University of Texas at Arlington, University of Texas at Dallas, Tilburg University, University of Virginia, University of Washington, Washington University in St. Louis, University of Wisconsin-Milwaukee, and University of Waterloo

#### **Professional Service**

- · Editorial Review Board
  - Marketing Science, 2011-present.
  - Journal of Marketing Research, 2019-present.
  - International Journal of Research in Marketing, 2019-present.
- Ad-hoc reviewer for California Management Review, Cambridge University Press, International Journal of Research in Marketing, Journal of the American Statistical Association, Journal of Computational and Graphical Statistics, Journal of Consumer Research, Journal of Health Economics, Journal of Retailing, Journal of Retailing and Consumer Services, Journal of Risk and Insurance, Journal of Interactive Marketing, Machine Learning, Management Science, Operations Research, Production and Operations Management, Psychometrika, and Statistics and Computing.
- 2020 INFORMS Marketing Science Conference. Ad-hoc reviewer for contributed abstracts.
- 2018 Marketing Dynamics Conference. Chair and Organizer.
- 2018 AMA Winter Academic Conference. Organizer, Early Career Mentorship Program.
- 2017 Adam G. Clayton Dissertation Proposal Competition, Marketing Science Institute.
  Reviewer.
- 2016 AMA Winter Marketing Educators Conference. Ad-hoc reviewer for contributed abstracts.
- 2015 AMA Winter Marketing Educators Conference. Track Chair, Marketing Analytics and Metrics.
- Wharton Customer Analytics Initiative. Ad-hoc reviewer for research proposals. 2014, 2015.
- Marketing Science Institute 2014 Research Proposal Competition on Social Interactions and Social Media Marketing. Evaluation Committee.
- American Statistical Association, Section on Statistics and Marketing
  - Program Chair, Section on Statistics and Marketing, 2009, 2013 and 2015 Joint Statistical Meetings (elected)
  - Section Chair, 2011 (elected)
  - Organizer for Invited Session on Probability Models of Customer Lifetime Value, 2010 Joint Statistical Meetings
  - Organizer, Invited Session on Parallel Computation for Bayesian Inference, 2011 Joint Statistical Meetings

• Continuing memberships: American Marketing Association, American Statistical Association, INFORMS, International Society for Bayesian Analysis

## School and University Service

Southern Methodist University

- Faculty Senate, 2016-2019
  - Executive Committee, 2018-2019
  - Athletic Policies Committee, 2017-2023
  - Academic Policies Committee, 2016-2017, 2019-2020
- University Athletics Council, 2017-2020
- University Admission Council, 2019-2020
- Provost Working Group on Colonial Group Faculty Survey, 2019-2020
- Committee on the Status of Non-Tenure-Line Faculty, 2017-2018
- SMU Cox School of Business
  - Interdepartmental Seminar Series on Business Research Methods, founding organizer, 2018-present
  - Information Technology Committee, 2018-present
  - Dean Search Committee, 2016-2017
- SMU Dedman College, Department of Statistical Science, Recruitment Committee, 2019-2020

Massachusetts Institute of Technology

• Faculty Search Committee, Operations Research and Statistics, 2009

# Teaching and Advising

- SMU Cox School of Business
  - Managerial Statistics (MBA and MS in Management core)
  - Customer Analytics using Probability Models (MS in Business Analytics core)
  - Global Leadership Program (MBA degree requirement)
  - Marketing Management (MBA core)
- MIT Sloan School of Management
  - Customer Analytics using Probability Models (MBA elective)
  - Marketing Management (MBA core)
  - Marketing New Products (MBA elective)
  - Doctoral Seminar in Marketing (selected sessions)
- Saïd Business School, University of Oxford
  - Marketing Analytics Using Probability Models (MBA elective)
- Undergraduate thesis advisor, Eli Stein, Harvard University Department of Statistics, 2013
  - Received highest honors in department

# Industry experience

- Evergage, Inc., Advisor, 2018-present
- Boston Consulting Group, Fundamentals of Marketing, 2012
- CCC Information Services, Science Advisory Board, 2011-2015
- Micronotes, Inc., Technical Advisory Board, 2011-2014
- Chello Broadband, N.V., Amsterdam, Netherlands, V.P., Global Affiliate Operations, 1999-2002
- Marcus Cable/Charter Communications. Fort Worth, Texas. Director, New Media. 1997-1999
- Comcast Online, Philadelphia, Pa., Manager, National Operations and Logistics, 1996-1997
- ESPN, Bristol, Conn. Production Assistant, 1993-1994