Dibyen Majumdar
Professor of Mathematics, Statistics, and Computer Science
UIC College of Liberal Arts and Sciences

Education: Ph.D. in Statistics, Indian Statistical Institute, 1981

Faculty Positions:

1995-present	Professor, Mathematics, Statistics and Computer Science, UIC
1988-1995	Associate Professor, Mathematics, Statistics and Computer Science, UIC
1982-1988	Assistant Professor, Mathematics, Statistics and Computer Science, UIC
1980-1982	Visiting Assistant Professor, Mathematics, UIC
2023-	Visiting Scholar, University of Chicago.

Administrative Positions:

Associate Director, Institute for Mathematical and Statistical Innovation, 2023 - https://www.imsi.institute/

Executive Associate Dean, College of Liberal Arts and Sciences, **UIC**, 2011 – 2022.

Oversee budget, faculty and staff hiring and retention, strategic initiatives, and so forth, as well as much of the day-to-day activities of the College. The Executive Associate Dean substitutes for the Dean as needed.

Associate Dean (Research and Facilities), College of Liberal Arts and Sciences, UIC, 2009 – 2011.

Oversee and incentivize research activities including external funding; manage space allocation and space needs, initiate and oversee renovations; oversee lab allocations, including start-up lab allocation.

Associate Head for Instruction, Department of Mathematics, Statistics, and Computer Science, **UIC**, 2004 – 2007.

Determine teaching schedules, instructional budget; hire instructors; lead initiatives for teaching and student success.

Director, Statistical Laboratory, Department of Mathematics, Statistics, and Computer Science, UIC, 1991-2005.

Oversee and execute projects, with graduate students, from clients within and outside UIC.

Data Science Initiatives

Research Talks: Started the UIC Data Science Initiative in 2016 with a series of cross-campus research seminars that brought together data science researchers from across UIC. My collaborators were Gilbert Bassett (College of Business) and Maxine Brown (College of Engineering). Each seminar had two different talks with speakers, generally from different colleges, who were leading researchers in data science theory and/or application.

Data Science undergraduate major: Established the UIC data science major with Robert Sloan, Head, Computer Science. The major is unique in that it has a core of mathematics, statistics, computer science and business courses, and a concentration to be chosen from a group of nine concentrations. The courses are spread over five colleges (Engineering, LAS, Business, Applied Health Sciences, CUPPA). The major started in Fall 2021. Though formally in the College of Engineering, the major is housed in the Colleges of Engineering, Liberal Arts and Sciences, and Business.

Data Science Partnership with the University of Chicago: Collaborated with the Data Science Center at the University of Chicago, to advance data science education to the underserved community funded. We are part of a consortium led by the University of Chicago, with partners: Howard University, University of Illinois at Chicago, Atlantic University Center Consortium Schools, California State, Fresno, and City Colleges of Chicago. The consortium aims to amplify social impact through data science, generate new pathways out of poverty for college students from low-resourced communities, increase the data science pipeline for social impact organizations and build an open, modular, experiential data science social impact curriculum.

Partnership with TransUnion Corporation (TU): Participated in conferences and several meetings with TU. In October 2018, I gave a presentation on *quantile regression with applications in the banking industry*.

Endowment: TransUnion Professor of Data Science at UIC

TransUnion made an endowment to UIC to establish the TransUnion Professor of Data Science. The first TransUnion Professor of Data Science, Yichao Wu of Mathematics, Statistics, and Computer Science was appointed in 2019.

Initiatives related to Instruction

Statistics: Developed two statistics courses for freshmen: STAT 101, Introduction to Statistics, with primary focus on applications of statistics in real world; and STAT 130, Introduction to Statistics for the Life Sciences, with primary focus on life science applications.

Mathematics: Developed a blended transitional math course for first year students.

Mathematics Education: Worked on mathematics education research projects with mathematics education faculty.

Learning Sciences Research Institute (LSRI): Led the effort to acquire new space for the LSRI in 2010.

Committee Work

LAS Committee:

Member (Elected) Educational Policy Committee (EPC), LAS 2006-2009.

Chair EPC: 2008 - 2009.

University Committees:

Member, Council for Excellence in Teaching and Learning (CETL), 2005-2009.

Chair of CETL: 2008 - 2009.

Member, IT Governance Council, UIC 2011-2015

Chair, Administration Subcommittee of IT Governance Council, 2011 – 2015.

Chair: UIC Committee on Data Science and Social Science, 2018 (appointed by Provost Poser)

Member, "Computing and Data" Discovery Partners Institute (DPI) Thematic Working Group, 2018

Member, Committee for Award for Excellence in Teaching, 2019

Chair, Data Science Institute Planning Committee (appointed by VCR Groden and VCI Augustine), 2019 -

Member, Provost's Fall 2020 Task Force, 2020-2021

Chair, Subcommittee 1: Remote/Online vs. Live of the Provost's Fall 2020 Task Force

Member, Chancellor's Strategic Priorities Refresh Committee, Student Experience and Success group, 2021.

Member, LMS Governance Board, 2021 -

Committees outside UIC:

Member, Governance Board, Joint Center for Energy Storage Research (https://www.jcesr.org/), 2012–2023.

Member, Search Committee for the Physical Sciences and Engineering (PSE) Associate Laboratory Director (ALD), Argonne National Laboratory, 2018-2019.

Research and Professional Activities

Principal Research Interests

Statistics: Theory and Methodology of Design of Experiments. Linear and Nonlinear Models. Applications of Statistics, especially in biomedical research. Design and Analysis of clinical trials.

Ph.D. Students

Feng-Shun Chai, Ph.D. 1992

Gerhardt Pohl, Ph.D. 1994

Hao Wang, Ph. D. 1998

Lei Nie, Ph. D. 2002

Li Chang, PhD 2004

Gang Li, PhD 2005

Shi Zhao, PhD 2008

Cuilan Zhang PhD 2010

Awards

Research: Shewell Award 2013, American Society for Quality

Teaching: Award for Excellence in Teaching (AET), UIC, 2008.

Teaching: Teaching Recognition Program (TRP) award from CETL, UIC, 1998.

External Funding

Air Force Office of Scientific Research "Design of Experiments and Reliability Models" AFOSR 80-0170, AFOSR 85-0320, 1982-1990.

National Science Foundation "College Preparatory Math Program", 1993, 1994.

National Science Foundation "Maneuvers with Mathematics", 1994.

National Science Foundation "All Learn Mathematics", ESI 9550061, Co-PI 1995-2000.

National Science Foundation "Center for the Implementation of Elementary Mathematics Curriculum: Math Trailblazers Implementation Center" (TIMS Project), ARC Center Student Achievement Studies (# 98-1-075) (Statistician) 2000-2002.

National Science Foundation "Efficient and Robust Designs Based on Ordered Units" (DMS-0204532), PI, 08/2002-07/2006.

National Science Foundation "Conference on New Directions in Experimental Design – DAE 2003, Chicago" NSF DMS-0234048, PI, 04/2003 – 03/2004.

National Institutes of Health (National Eye Institute, R01 EY10457): "Microcirculation of Uveal Melanoma" 04/2003 – 03/2008.

CDG Therapeutics, "Redox protein in cancer" Co-PI 12/2004 to 03/2009.

National Science Foundation "ASCEND: Assuring STEM Credential Expansion through Nurturing Diversity", Award 0525582 Co-PI 2008-2011.

Journal Editor

Associate Editor, Journal of Statistical Planning and Inference: 2000 – present

Associate Editor, Sankhya: 2000 - 2011.

Conference series organization

Design and Analysis of Experiments (DAE) Series

Created and organized the *Design and Analysis of Experiments* (DAE) series of national conferences, with Angela Dean, Ohio State University and Kathryn Chaloner, University of Minnesota (https://sites.google.com/view/dae-conferences). The focus of the series is on emerging areas of research in experimental design, as well as novel innovations in traditional areas. A salient feature of the DAE series is pairing of senior and junior researchers for mentoring purposes.

First DAE conference: Ohio State University, May 2000.

Since 2000, DAE is held once every two years. The last conference was in virtual mode in 2021.

Steering Committee member of the DAE series 2000 – 2015: DAE 2000 in Columbus, OH; DAE 2001 in Vancouver, BC; DAE 2003 in Chicago, Il; DAE 2005 in Santa Fe, NM; DAE 2007 in Memphis, TN; DAE 2009 in Columbus, MO; DAE 2012 in Athens, GA; DAE 2015 in North Carolina.

Chair, DAE Steering Committee, 2007-2009.

Organized DAE 2003 in Chicago, Illinois, May 14-17, 2003

Organization committee: Angela Dean, Kathryn Chaloner and Dibyen Majumdar (chair).

DAE 2003 sponsored by:

National Science Foundation (DMS 0234048) (funding to UIC)
Fujisawa
Pharmacia
Northeastern Illinois Chapter of the American Statistical Association
UIC

Invited Research Talks Delivered at Professional Meetings

Joint Statistical Meetings of the Institute of Mathematical Statistics and the American Statistical Association, Chicago, Illinois, Aug 1986.

First Meeting for the Workshop for Supercomputing and Experimental Design,
University of Illinois at Urbana, Oct 1987 (invited discussant).

First International Conference-Workshop on Optimal Design and Analysis of Experiments,

First International Conference-Workshop on Optimal Design and Analysis of Experiments, Neuchatel, Switzerland, July 1988.

Workshop on Design of Experiments, University of Southampton, U.K., July/Aug 1989.

Conference on Large Scale Sample Surveys, Indian Statistical Institute, Dec 1990.

Workshop on Linear Models and Design of Experiments, Indian Statistical Institute, Dec 1990

Meeting on Design of Experiments: Optimality, Construction and Applications, Mathematics Institute, Oberwolfach, Germany, May 1993.

R. C. Bose Memorial Conference on Statistical Design and Related Combinatorics, Fort Collins, Colorado, June 1996.

Annual Meeting of the American Statistical Association, Chicago, Illinois, August 1996.

First NIU Symposium on Statistical Science, DeKalb, Illinois, September 1996.

Workshop on Optimal Design with Applications, Sambalpur, India, December 1996.

Third Triennal International Conference, Calcutta, December 1997.

International Statistical Institute and Bernoulli Society Conference, Calcutta, December 1997.

Conference on Experimental Design: Theory and Application, Mathematics Institute, Oberwolfach, Germany, November 1998.

Sixth International Conference on Statistics, Combinatorics, and Related Areas, Forum for Interdisciplinary Mathematics, Mobile, Alabama, December 1999.

International Indian Statistical Association Fourth Biennial International Conference on Statistics, Probability and Related Areas, NIU, DeKalb, Il, June 14-16, 2002.

The 2002 Taipei International Statistical Symposium and Bernoulli Society EAPR Conference, Taiwan, July 7 – 10, 2002.

Justus F. Seely Memorial Conference on Linear Models, Corvallis, Oregon, July 31 – August 1, 2003.

Joint Statistical Meetings, Minneapolis, MN, August 2005.

Designed Experiments: Recent Advances in Methods and Applications: DEMA2006, Southampton, UK, September 2006.

International conference on Statistics and Informatics in Agricultural Research, To celebrate the Diamond Jubilee of the Founding of Indian Society of Agricultural Statistics, New Delhi, India, December 27-30, 2006.

International Conference on Matrices and Statistics (in memory of Professor S. K. Mitra), Indian Statistical Institute, Hyderabad, January 6-7, 2007.

Joint Statistical Meetings, (American Statistical Association and Institute of Mathematical Statistics) Salt Lake City, UT, August 2007.

International Conference on Advances in Interdisciplinary Statistics and Combinatorics, University of North Carolina, Greensboro, Oct 12-14, 2007.

Platinum Jubilee Conference of the Indian Statistical Institute (ICSPRAR-2008), Jan 1-4, 2008.

Pre-ICM Conference, Delhi University, Dec 18 – 20, 2009.
International Conference on Design of Experiments, University of Memphis, May 10-13, 2011.

Designed Experiments: Recent Advances in Methods and Applications, Isaac Newton Institute, Cambridge University, UK, Aug 30 – Sep 2, 2011.

International Conference on Statistics and Informatics in Agricultural Research, Indian Agricultural Statistics Research Institute, New Delhi, December 18-20, 2012.

International Conference on Contemporary Issues and Applications of Statistics, Indian Statistical Institute, Kolkata, Jan 2-4, 2012.

Designed Experiments: Recent Advances in Methods and Applications (DEMA) Sydney, Australia, December 14-17, 2015.

International Indian Statistical Association, Chicago, May 20-23, 2021.
Invited speaker: Supersaturated and Sequential Designs, May 21, 2021
Session chair: Big Data and Modern Designs, May 20, 2021

Invited Lectures to graduate students: I delivered two series of invited lectures on *multivariate analysis*, *nonlinear mixed models* and *optimal designs* in summer 2009 and summer 2010 to advanced PhD students in Electrical Engineering at Washington University at St. Louis.

Publications

Dodge, Y. and Majumdar, D. An algorithm for finding least square generalized inverses for classification models with arbitrary patterns, *Journal of Statistical Computation and Simulation*, 9, 1979, 1-17.

Majumdar, D. and Mitra, S. K. Least squares under quadratic constraints, *Optimizing Methods in Statistics*, (J.S. Rustagi, ed.), Academic Press, 1979, 321-333.

Bhimasankaram, P. and Majumdar, D. Hermitian and nonnegative definite solutions of some matrix equations connected with the distribution of quadratic forms, *Sankhya A*, 42, 1980, 272-282.

Majumdar, D. and Mitra, S. K. Statistical analysis of nonestimable functionals Part I: Estimation, *Lecture Notes in Statistics* **2**, (W. Klonecki, A. Kozek and J. Rosinski, eds), Springer Verlag, 1981, 288-317.

Pincus, R. and Majumdar, D. Monte Carlo studies for the power of a one sided test for homogeneity of means in an unbalanced one way model, *Sankhya B,* 43, 1981, 104-111.

Majumdar, D. and Notz, W. I. Optimal incomplete block designs for comparing treatments with a control, *Annals of Statistics*, 11, 1983, 258-266.

Hedayat, A. and Majumdar, D. Redesigning experiments, *Developments in Statistics and its Applications*, Proceedings of the First Saudi Symposium on Statistics and its Applications 1983, (A.M. Abuammoh, E. El-Neweihi, E. Aly and M.A. Alosh eds.), 1984, 113-141.

Hedayat, A. and Majumdar, D. A-optimal incomplete block designs for control-treatment comparisons, *Technometrics*, 26, 1984, 363-370.

Hedayat, A. and Majumdar, D. Combining experiments under Gauss-Markov models, *Journal of the American Statistical Association,* 80, 1985, 698-703.

Hedayat, A. and Majumdar, D. Families of A-optimal block designs for comparing test-treatments with a control, *Annals of Statistics*, 13, 1985, 757-767.

Majumdar, D. Optimal designs for comparisons between two sets of treatments, *Journal of Statistical Planning and Inference,* 14, 1986, 359-372.

Hedayat, A. and Majumdar, D. Model robust optimal designs for comparing test treatments with a control, *Journal of Statistical Planning and Inference,* 18, 1988, 25-33.

Cheng, C. S., Majumdar, D., Stufken, J. and Ture, T. E. Optimal step type designs for comparing test treatments with a control, *Journal of the American Statistical Association* 83, 1988, 477-482.

Hedayat, A., Jacroux, M. and Majumdar, D. Optimal designs for comparing test treatments with controls, *Statistical Science,* 3, 1988, 421-491 (with discussions).

Majumdar, D. Optimal repeated measurements designs for comparing test treatments with a control, *Communications in Statistics A - Theory and Methods,* 17, 1988, 3687-3703.

Majumdar, D. Optimal block designs for comparing new treatments with a standard treatment, *Optimal Design and Analysis of Experiments* (Y. Dodge, V.V. Federov and H.P. Wynn eds.), Elsevier Science Publishers, B.V., North Holland, Amsterdam, 1988, 15-27.

Jacroux, M. and Majumdar, D. Optimal block designs for comparing test treatments with a control when k>v, *Journal of Statistical Planning and Inference,* 23, 1989, 381-396.

Kageyama, S. and Majumdar, D. Resistant BTIB designs, *Communications in Statistics A - Theory and Methods*, 19, 1990, 2145-2158.

Majumdar, D. Optimal designs for comparing test treatments with a control utilizing prior information, *Annals of Statistics*, 20, 1992, 216-237.

Hedayat, A., Khosrovshahi, G. B. and Majumdar, D. A prospect for a general method of constructing t-designs, *Discrete Applied Math.*, 42, 1992, 31-50.

Khosrovshahi, G. B., Majumdar, D. and Widel, M. On the structure of basic trades, *Journal of Combinatorics, Information and System Sciences*, Special issue in honor of R.C. Bose (D.K. Raychaudhuri and M.N. Singhi eds.), 17, 1992, 102-107.

Hedayat, A. and Majumdar, D. An application of trade-off to controlled sampling, *Proceedings of the Seminar on Problems on Problems of Large Scale Sample Survey in India*, held in Dec, 1990, A. Dewanji and A.K. Adhikari, eds, 44-54.

Chai, F. S. and Majumdar, D. On the Yeh-Bradley conjecture on linear trend-free block designs, *Annals of Statistics*, 21, 1993, 2087-2097.

Hedayat, A. and Majumdar, D. Generating desirable sampling plans by the technique of trade-off in experimental design, *Journal of Statistical Planning and Inference*, 44, 1995, 237-248.

Jacroux, M., Majumdar, D. and Shah, K. R. Efficient block designs in the presence of trends, *Statistics Sinica*, 5, 1995, 605-615.

Banerjee, P., Majumdar, D. and Studier, M. A metric for efficient exchange of part design and manufacturing information, *Transactions of North American Research Institute of the Society of Manufacturing Engineers*, 23, 1995, 357-362.

Majumdar, D. and Tamhane, A. Row-column designs for comparing treatments with a control, *Journal of Statistical Planning and Inference*, 49, 1996, 387-400.

Majumdar, D. Optimal and efficient treatment-control designs, *Handbook of Statistics* (S. Ghosh and C. R. Rao, eds.), North Holland, 13, 1996, 1007-1053.

Majumdar, D. On the admissibility and optimality of treatment-control designs, *Annals of Statistics*, 14, 1996, 2097-2107.

Majumdar, D. On the Yeh-Bradley conjecture for treatment-control designs, *Bulletin of the Calcutta Statistical Association*, 46, 1996, 231-243.

Jacroux, M., Majumdar, D. and Shah, K. R. On the determination and construction of optimal block designs in the presence of trends, *Journal of the American Statistical Association*, 92, 1997, 375-382.

Majumdar, D. Block intersection of treatment-control designs, Journal *of Combinatorics, Information and System Sciences*, Special Issue in honor of J. N. Srivastava, 23, 1998, 251-258.

Gerami, A., Lewis, S. M., Majumdar, D. and Notz, W. I. Efficient block designs for comparing dual versus single treatments, *Journal of Statistical Planning and Inference*, 71, 1998, 247-263.

Baxter, J., Majumdar, D. and Smith, S. Subsequent grades assessment of traditional and reform calculus, *Primus*, 8, 1998, 317-330.

Majumdar, D. Trend-free designs, *Encyclopedia of Statistical Science* (S. Kotz, ed), Update 3, 1999, Wiley, New York, 759-762.

Chai, F. S. and Majumdar, D. Optimal designs for nearest neighbor analysis, *Journal of Statistical Planning and Inference*, 86, 2000, 265-275.

Salti, G. I., Manougian, T., Farolan, M., Shilkaitis, A., Majumdar, D. and Das Gupta, T. K. Micropthalmia transcription factor: a new prognostic marker in intermediate-thickness cutaneous malignant melanoma, *Cancer Research*, 60, 2000, 5012-5016.

Warso, M. A., Maniotis, A. J., Chen, X., Majumdar, D., Patel, M. K., Shilkaitis, A., Das Gupta, T. K. and Folberg, R. Prognostic significance of periodic acid-schiff (PAS) positive patterns in primary cutaneous melanoma, *Clinical Cancer Research*, 7, 2001, 473-477.

Vonesh, E. F., Wang, H. and Majumdar, D. Generalized least squares, Taylor series linearization and Fisher's scoring in multivariate nonlinear regression, *Journal of the American Statistical Association*, 96, 2001, 282-291.

Vonesh, E. F., Wang, H., Nie, L. and Majumdar, D. Conditional second order generalized estimating equations for generalized linear and nonlinear mixed effects models, *Journal of the American Statistical Association*, 97, 2002, 271-283.

Majumdar, D. and Martin, R. J. Finding optimal designs in the presence of trends, *Journal of Statistical Planning and Inference*, 106, 2002, 177-190.

Chen, X., Maniotis, A.J., Majumdar, D., Pe'er, J., and Folberg, R. Uveal melanoma cell staining for CD34 and the assessment of tumor vascularity, *Investigative Ophthalmology & Visual Sciience,* 43, 2002, 2533-2539.

Yamada, T., Goto, M. Punj, V., Zaborina, O. Chen, M., Kimbara, K., Majumdar D., Cunningham, E., Das Gupta, T. K., Chakrabarty, A. M. Bacterial redox protein azurune, tumor suppressor protein p53, and regression of cancer, *Proceedings of the National Academy of Sciences*, 99, 2002, 14098 – 14103.

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Majumdar, D. and Martin, R. J. Efficient designs based on orthogonal arrays of type I and type II for experiments using ordered units over time or space, *Statistical Methodology*, 1, 2004, 19-35.

Kadkol, S., Lin, A., Barak, V., Kalickman, I., Leach, L. Majumdar, D. Setty, S. Maniotis, A., Folberg, R., and Pe'er, J. Tumor Cell Plasticity in Uveal Melanoma: Microenvironment Directed Dampening of the Invasive and Metastatic Genotype and Phenotype Accompanies the Generation of Vasculogenic Mimicry Patterns *American Journal of Pathology*, 169, 2006, 1376-1389.

Kadkol, ShriHari S., Amy Y. Lin, Vivian Barak, Inna Kalickman, Lu Leach, Klara Valyi-Nagy, Dibyen Majumdar, Suman Setty, Andrew J. Maniotis, Robert Folberg, and Jacob Pe'er Osteopontin Expression and Serum Levels in Metastatic Uveal Melanoma: A Pilot Study *Invest. Ophthalmol. Vis. Sci.* 2006 47: 802-806.

Frenkel S, Barzel I, Levy J, Lin AY, Bartsch D-U, Majundar D, Folberg R, Pe'er J: Demonstrating circulation in vasculogenic mimicry patterns of uveal melanoma by confocal indocyanine green angiography, *Eye*, 2007, http://www.nature.com/doifinder/10.1038/sj.eye.6702783

Majumdar, D., Dean, A. and Lewis, S. M. Uniformly Balanced Repeated Measurements Designs in the Presence of Subject Dropout, *Statistica Sinica*, 18, 2008, 235-254.

Li, G. and Majumdar, D. D-optimal designs for logistic models with three and four parameters, *Journal of Statistical Planning and Inference,* 138, 2008, 1950-1959.

Majumdar, D. and Stufken, J. Optimal designs for mixed models in experiments based on ordered units, *Annals of Statistics*, 36, 2008, 1090-1107.

Yamada, T., Mehta, R., Lekmine, F., Christov, K., King, M., Majumdar, D., Shilkaitis, A., Green, A., Bratescu, L., Beattie, C. W., Das Gupta, T. K. A peptide fragment of azurin induces a p53 mediated cell cycle arrest in human breast cancer cells, *Molecular Cancer Theory*, 8, 2009, 2947-2958.

Li, G. and Majumdar, D. Locally D-optimal designs for nonlinear models with minimal support, *Biometrika*, 96, 2009, 487 - 493.

Zhao, S. and Majumdar, D. On uniformly balanced crossover designs efficient under subject dropout, *Journal of Statistical Theory and Practice*, 6, 2012, 178-189.

Yang, J., Mandal, A. and Majumdar, D., Optimal designs for two level factorial designs with binary response, *Statistica Sinica*, 22, 2012, 885-907.

Dong, Fei, Shatz, Sol, Xu, Haiping and Majumdar Dibyen, Price Comparison: A Reliable Approach to Identifying Shill Bidding in Online Auctions? *Electronic Commerce Research and Applications*, 11, 2012, 171-179.

Jones, B. and Majumdar, D., Discussion of "Optimal designs of experiments for statistical inferences" by Gilmour and Trinca, *Journal of the Royal Statistical Society, Series C*, 61, 2012, 385-386.

Warso, M. A., Richards, J. M., Mehta, D., Christov, K., Schaeffer, C., Rae Bressler, L., Yamada, T., Majumdar, D., Kennedy, S. A., Beattie and C. W., Das Gupta, T. K. A first-in-class, first-in-human, phase I trial of p28, a non-HDM2-medicated peptide inhibitor of p53 ubiquitination in patients with advanced solid tumors. *British Journal of Cancer*, 108, 2013, 1061-1070.

Kao, M., Majumdar, D., Mandal, A. and Stufken, J., Maximin and maximin-efficient event-related fMRI designs under a nonlinear model, *Annals of Applied Statistics*, 7, 2013, 1940-1959.

Revzin, E., Majumdar, D., and Bassett, G. W., Conditional quantile regression models for melanoma tumor growth curves for assessing treatment effects in small sample studies, *Statistics in Medicine*, 33, 2014, 5209-5220.

Jones, B. and Majumdar, D., Optimal Supersaturated Designs. *Journal of the American Statistical Association*, 109, 2014, 1592-1600.

Yang, J., Mandal, A. and Majumdar, D., Optimal Designs for 2^k Factorial Experiments with Binary Response, *Statistica Sinica*, 26, 2015, 385-411. doi:10.5705/ss.2013.265

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Bu, X., Majumdar, D. and Yang, J., D-optimal Designs for Multinomial Logistic Models, *Annals of Statistics*, 48, 2020, 983-1000.