Ming Yan

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Education

2008-2012 *University of California, Los Angeles (UCLA)*, Los Angeles, CA, USA
Ph.D. in Mathematics, 2012
Dissertation: Image and Signal Processing with Non-Gaussian Noise: EM-Type Algorithms and Adaptive Outlier Pursuit
Advisor: Professor Luminita A. Vese

2001-2008 *University of Science and Technology of China (USTC)*, Hefei, Anhui, China
M.S. in Mathematics, 2008
B.S. in Mathematics, 2005

Employment

Michigan State University (MSU), East Lansing, MI, USA
07/2021-present Associate Professor, Department of Computational Mathematics, Science and Engineering
07/2021-present Associate Professor, Department of Mathematics
07/2015-06/2021 Assistant Professor, Department of Computational Mathematics, Science and Engineering
07/2015-06/2021 Assistant Professor, Department of Mathematics

University of California, Los Angeles, Los Angeles, CA, USA
07/2014-06/2015 Assistant Adjunct Professor, Department of Mathematics
07/2013-06/2014 Postdoctoral Scholar, Department of Mathematics
Advisors: Wotao Yin

Rice University, Houston, TX, USA
07/2012-06/2013 Postdoctoral Fellow, Department of Computational and Applied Mathematics
Advisor: Wotao Yin

Publications

The diamond suit "♢" means alphabetical order; the club suit "♣" means corresponding author; The underline "_" means advised students or postdocs.

Published / Accepted

52 X. Liu, W. Jin, Y. Ma, Y. Li, H. Liu, Y. Wang, **M. Yan**, and J. Tang, Elastic graph neural networks, *In: Proceedings of International Conference on Machine Learning (ICML 2021)*, accepted. (acceptance rate=1184/5513=21.5%, long presentation=166/684=3.0%)

51 S. Vakalis, D. Chen, **M. Yan**, and J. Nanzer, Image enhancement in active incoherent millimeter-wave imaging, *In: Proceedings of Passive and Active Millimeter-Wave Imaging XXIV*, 11745 (2021), 1174507.

50 H. Ouassal, **M. Yan**, and J. Nanzer, Decentralized frequency alignment for collaborative beamforming in distributed phased arrays, *IEEE Transactions on Wireless Communications*, accepted.

49 **M. Yan**, Asynchronous parallel computing, in *W. Piegorsch, R. Levine, H. Zhang, and T. Lee (Eds.), Handbook of Computational Statistics and Data Science*, accepted.

♢48 J. Carrillo, L. Wang, W. Xu, and **M. Yan**, Variational asymptotic preserving scheme for the Vlasov-Poisson-Fokker-Planck system, *Multiscale Modeling and Simulation*, (2021), accepted.

♢47 W. Guo, Y. Lou, J. Qin, and **M. Yan**, A novel regularization based on the error function for sparse recovery, *Journal of Scientific Computing*, 87 (2021), 31.

♢46 Y. Li and **M. Yan**, On linear convergence of two decentralized algorithms, *Journal of Optimization Theory and Applications*, 189 (2021), 271–290.

45 X. Liu, Y. Li, R. Wang, J. Tang, and **M. Yan**, Linear convergent decentralized optimization with compression, *In: Proceedings of the International Conference on Learning Representations (ICLR 2021)*. (acceptance rate=860/2997=28.7%)

♢44 J. Liu, **M. Yan**, and T. Zeng, Surface-aware blind image deblurring, *IEEE Transactions on Pattern Analysis and Machine Intelligence*, 43 (2021), 1041–1055.

♢43 Z. Li and **M. Yan**, New convergence analysis of a primal-dual algorithm with large stepsizes, *Advances in Computational Mathematics*, 47 (2021), 9.

♢42 N. Sha, L. Shi, and **M. Yan**, Fast algorithms for robust principal component analysis with an upper bound on the rank, *Inverse Problems and Imaging*, 15 (2021), 109–128.

41 S. Alghunaim, **M. Yan**, and A. Sayed, A multi-agent primal-dual strategy for composite optimization over distributed features, *In: Proceedings of the 28th European Signal Processing Conference (EUSIPCO 2020)*, 2095–2099.

40 C. Wang, **M. Yan**, Y. Rahimi, and Y. Lou, Accelerated schemes for the L1/L2 minimization, *IEEE Transactions on Signal Processing*, 68 (2020), 2660–2669.

♢39 P. Chatterjee, J. Nanzer, and **M. Yan**, Frequency consensus for distributed antenna arrays with half-duplex wireless coordination, *In: Proceedings of the 2020 IEEE International Symposium on Antennas and Propagation and North American Radio Science Meeting (IEEE AP-S/URSI 2020)*, 1585–1586.

38 H. Ouassal, T. Rocco, **M. Yan**, and J. Nanzer, Decentralized frequency synchronization in distributed antenna arrays with quantized frequency states and directed communications, *IEEE Transactions on Antennas and Propagation*, 68 (2020), 5280–5288.

37 X. Liu, Y. Li, J. Tang, and **M. Yan**, A double residual compression algorithm for efficient distributed learning, *In: Proceedings of the International Conference on Artificial Intelligence and Statistics (AISTATS 2020)*, 133–143.

36 H. Lyu, N. Sha, S. Qin, **M. Yan**, Y. Xie, and R. Wang, Manifold denoising by nonlinear robust principal component analysis, *In: Proceedings of the Conference on Neural Information Processing Systems (NeurIPS 2019)*, 13390–13400. (acceptance rate=1428/6743=21.2%)

♢35 J. Liu, **M. Yan**, J. Zeng, and T. Zeng, Image smoothing via gradient sparsity and surface area minimization, *In: Proceedings of IEEE International Conference on Image Processing (ICIP 2019)*, 1114–1118. (acceptance rate=945/2068=45.7%)

34 N. Sha, **M. Yan**, and Y. Lin, Efficient seismic denoising techniques using robust principal component analysis, *In: SEG Technical Program Expanded Abstracts (SEG 2019)*, 2543–2547.

♢33 Z. Li, W. Shi, and **M. Yan**, A decentralized proximal-gradient method with network independent step-sizes and separated convergence rates, *IEEE Transactions on Signal Processing*, 67 (2019), 4494–4506.

32 Y. Hao, **M. Yan**, B. Heath, Y. Lei, and Y. Xie, Fast and robust deconvolution of tumor infiltrating lymphocyte from expression profiles using least trimmed squares, *PLOS Computational Biology*, 15 (2019), e1006976.

♣31 X. Huang, H. Yang, Y. Huang, L. Shi, F. He, A. Maier, and **M. Yan**, Robust mixed one-bit compressive sensing, *Signal Processing*, 162 (2019), 161–168.

♢30 Z. Peng, Y. Xu, **M. Yan**, and W. Yin, On the convergence of asynchronous parallel iteration with unbounded delays, *Journal of Operations Research Society of China*, 7 (2019), 5–42.

♣29 X. Huang, L. Shi, **M. Yan**, and J. Suykens, Pinball loss minimization for one-bit compressive sensing: Convex models and algorithms, *Neurocomputing*, 314 (2018), 275–283.

♢28 F. He, X. Huang, Y. Liu, and **M. Yan**, Fast signal recovery from saturated measurements by linear loss and nonconvex penalties, *IEEE Signal Processing Letters*, 25 (2018) 1374–1378.

27 H. Tang, X. Lian, **M. Yan**, Ce Zhang, and Ji Liu, D^2: Decentralized training over decentralized data, *In: Proceedings of International Conference on Machine Learning (ICML 2018)*, PMLR 80 (2018), 4848–4856. (acceptance rate=618/2473=25.0%)

26 **M. Yan**, A new primal-dual algorithm for minimizing the sum of three functions with a linear operator, *Journal of Scientific Computing*, 76 (2018), 1698–1717.

♢25 Y. Lou and **M. Yan**, Fast l1-l2 minimization via a proximal operator, *Journal of Scientific Computing*, 74 (2018), 767–785.

♢24 X. Huang and **M. Yan**, Non-convex penalties with analytical solutions for one-bit compressive sensing, *Signal Processing*, 144 (2018), 341–351.

23 Q. Xu, **M. Yan**, C. Huang, J. Xiong, Q. Huang, and Y. Yao, Exploring outliers in crowdsourced ranking for QoE, *In: Proceedings of the ACM International Conference on Multimedia (MM 2017)*, 1540–1548. (acceptance rate=189/684=27.6%, oral presentation=49/684=7.2%)

♢22 **M. Yan** and W. Yin, Self equivalence of the alternating direction method of multipliers, in *R. Glowinski, S. Osher, and W. Yin (Eds.), Splitting Methods in Communication and Imaging, Science and Engineering* (2016), New York, Springer, 165–194.

21 I. Baytas, **M. Yan**, A. Jain, and J. Zhou, Asynchronous multi-task learning, *In: Proceedings of IEEE International Conference on Data Mining (ICDM 2016)*, 11–20. (acceptance rate=178/904=19.6%, long paper=78/904=8.6%)

20 L. Chen, **M. Yan**, C. Qian, N. Xi, Z. Zhou, Y. Yang, B. Song, and L. Dong, Nonconvex compressive video sensing, *Journal of Electronic Imaging*, 25 (2016), 063003.

♣19 H. Zhang, **M. Yan**, and W. Yin, One condition for solution uniqueness and robustness of both l1-synthesis and l1-analysis minimizations, *Advances in Computational Mathematics*, 42 (2016), 1381–1399.

♢18 Z. Peng, Y. Xu, **M. Yan**, and W. Yin, ARock: an algorithmic framework for asynchronous parallel coordinate updates, *SIAM Journal on Scientific Computing*, 38 (2016), A2851–A2879.

♢17 F. Li, S. Osher, J. Qin, and **M. Yan**, A multiphase image segmentation based on fuzzy membership functions and L1-norm fidelity, *Journal of Scientific Computing*, 69 (2016), 82–106.

♢16 Z. Peng, T. Wu, Y. Xu, **M. Yan**, and W. Yin, Coordinate friendly structures, algorithms and applications, *Annals of Mathematical Sciences and Applications*, 1 (2016), 57–119.

♢15 X. Huang, L. Shi, and **M. Yan**, Nonconvex sorted ℓ_1 minimization for sparse approximation, *Journal of Operations Research Society of China*, 3 (2015), 207–229.

♢14 Z. Peng, **M. Yan**, and W. Yin, Parallel and distributed sparse optimization, *In: Proceedings of IEEE Asilomar Conference on Signals Systems and Computers*, 2013, 659–664. (**Best Student Paper Finalist**)

13 **M. Yan**, A. Bui, J. Cong, and L. A. Vese, General convergent expectation maximization (EM)-type algorithms for image reconstruction, *Inverse Problems and Imaging*, 7 (2013), 1007–1029.

12 **M. Yan**, Y. Yang, and S. Osher, Exact low-rank matrix completion from sparsely corrupted entries via adaptive outlier pursuit, *Journal of Scientific Computing*, 56 (2013), 433–449.

11 **M. Yan**, Restoration of images corrupted by impulse noise and mixed Gaussian impulse noise using blind inpainting, *SIAM Journal on Imaging Sciences*, 6 (2013), 1227–1245.

10 **M. Yan**, Convergence analysis of SART: optimization and statistics, *International Journal of Computer Mathematics*, 90 (2013), 30–47.

♢9 J. Chen, J. Cong, L. A. Vese, J. Villasenor, **M. Yan**, and Y. Zou, A hybrid architecture for compressive sensing 3D CT reconstruction, *IEEE Journal on Emerging and Selected Topics in Circuits and Systems*, 2 (2012), 616–625.

8 **M. Yan**, Y. Yang, and S. Osher, Robust 1-bit compressive sensing using adaptive outlier pursuit, *IEEE Transactions on Signal Processing*, 60 (2012), 3868–3875.

♢7 J. Chen, J. Cong, **M. Yan**, and Y. Zou, FPGA-accelerated 3D reconstruction using compressive sensing, *In: Proceedings of the ACM/SIGDA International Symposium on Field Programmable Gate Arrays (FPGA 2012)*, 163–166. (acceptance rate: 36/87=41.4%)

6 **M. Yan**, EM-type algorithms for image reconstruction with background emission and Poisson noise, *In: Proceedings of 7th International Symposium on Visual Computing*, Lecture Notes in Computer Science (LNCS), 6938 (2011), 33–42.

5 **M. Yan**, J. Chen, L. A. Vese, J. Villasenor, A. Bui, and J. Cong, EM+TV based reconstruction for cone-beam CT with reduced radiation, *In: Proceedings of 7th International Symposium on Visual Computing*, Lecture Notes in Computer Science (LNCS), 6938 (2011), 1–10.

4 J. Chen, **M. Yan**, L. A. Vese, J. Villasenor, A. Bui, and J. Cong, EM+TV for reconstruction of cone-beam CT with curved detectors using GPU, *In: Proceedings of International Meeting on Fully Three-Dimensional Image Reconstruction in Radiology and Nuclear Medicine,* 2011, 363–366.

3 **M. Yan** and L. A. Vese, Expectation maximization and total variation based model for computed tomography reconstruction from undersampled data, *In: Proceedings of SPIE Medical Imaging: Physics of Medical Imaging*, 7961 (2011), 79612X.

♢2 H. Han and **M. Yan**, A mixed finite element method on a staggered mesh for Navier-Stokes equations, *Journal of Computational Mathematics*, 26 (2008), 816–824.

♣1 H. Han, **M. Yan**, and C. Wu, An energy regularization method for the backward diffusion problem and its applications to image deblurring, *Communications in Computational Physics*, 4 (2008), 177–194.

Submitted / Preprints

2. Z. Li, **M. Yan**, and T. Zeng, Phase retrieval from incomplete magnitude information via weighted nuclear norm and l1-l2 minimization, submitted.

1. S. Alghunaim, Q. Lyu, **M. Yan**, and A. Sayed, Dual consensus proximal algorithm for multi-agent sharing problems, *IEEE Transactions on Signal Processing*, submitted.

Technical Reports and Other Publications

♣T4 X. Huang, Y. Xia, L. Shi, Y. Huang, **M. Yan**, J. Hornegger, and A. Maier, Mixed one-bit compressive sensing with application to overexposure correction for CT reconstruction, arXiv:1701.00694. (A later version is published in Signal Processing 2019 (cf. [31]))

♢T3 Q. Xu, **M. Yan**, and Y. Yao, Fast adaptive least trimmed squares for robust evaluation of quality of experience, arXiv: 1407.7636, 2014. (A later version is published in ACM Multimedia 2017 (cf. [23]))

♢T2 Z. Fan, F. Guan, C. Wu, and **M. Yan**, The continuity of images by transmission imaging revisited, arXiv: 1401.1558, 2014.

♢T1 **M. Yan**, General convergent expectation maximization (EM)-type algorithms for image reconstruction with background emission and Poisson noise, UCLA CAM report 11–56, 2011.

Honors and Awards

2020	Facebook Faculty Research Award (Systems for ML)
2018	Academy for Global Engagement Fellowship, MSU
2014	Nominee for Chancellor's Award for Postdoctoral Research, UCLA
2012-2014	AMS-Simons Travel Grant
2010	Chancellor's Fellowship, UCLA
2009	Horn-Moez Fellowship, UCLA
2008	Roy and Dorothy John Fellowship, UCLA
2005	Outstanding Graduate Scholarship, USTC
2002-2004	Outstanding Student Scholarship, USTC

Grants

08/2020-07/2023	Single-PI, NSF DMS-2012439 ($200K)
05/2020-04/2021	Co-PI (50%), Facebook Faculty Research Award ($50K)
04/2019-03/2021	Co-PI (50%), Ford-MSU Innovation Alliance ($193K)
08/2018-08/2023	Key Personnel (4%), NSF DGE-1828149 ($3,000K)
08/2018-08/2020	PI (50%), Industry ($130K)
09/2016-08/2019	Single-PI, NSF DMS-1621798 ($150K)

Presentations (2018–)

Invited Conference Presentations

07/23/2021	Primal-dual algorithms for minimizing the sum of three functions with a linear operator, *SIAM Conference on Optimization (OP21)*, online
07/08/2021	Larger stepsizes for some primal-dual algorithms, *EUROPT 2021 Workshop on Advances in Continuous Optimization*, online
11/07/2020	Distributed optimization for machine learning, *MSU NRT-IMPACTS Retreat*, online
10/17/2020	Data compression in distributed learning, *Midwest Optimization Meeting*, online
10/26/2019	Distributed optimization algorithms over networks, *Conference on Computational Mathematics and Applications*, University of Nevada, Las Vegas, NV
10/14/2019	Data compression in distributed learning, *Computational Imaging*, Institute for Mathematics and its Applications, Minneapolis, MN
11/03/2018	Signal and image recovery from saturated measurements, *International Conference on Mathematics of Data Science*, Old Dominion University, Norfolk, VA
10/26/2018	Primal-dual algorithms and their applications, *Recent Advances in Machine Learning and Computational Methods for Geoscience*, Institute for Mathematics and its Applications, Minneapolis, MN
07/13/2018	Distributed consensus optimization algorithms over networks, *Workshop on Differential Equations on Networks and Related Problems*, Zhejiang University, Hangzhou, China

06/23/2018	Primal-dual algorithms for the sum of functions, *2018 International Workshop on Signal Processing, Optimization and Compressed Sensing*, Nanjing University, Nanjing, China
05/05/2018	ARock: Asynchronous parallel coordinate updates, *SIAM Conference on Applied Linear Algebra*, Hong Kong
01/09/2018	Primal-dual algorithms for the sum of two and three functions, *11th US & Mexico Workshop on Optimization and its Applications*, Huatulco, Mexico

Invited Seminar and Colloquium Presentations

06/10/2021	Data compression in distributed learning, *School of Mathematical Sciences, Zhejiang University*, Hanzhou, China
01/19/2021	Data compression in distributed learning, *School of Mathematical Sciences, Fudan University*, online
11/27/2020	Data compression in distributed learning, *School of Mathematics and Statistics, Northeast Normal University*, online
10/19/2020	Data compression in distributed learning, *Department of Mathematics and Statistics, University at Albany*, online
12/20/2018	Distributed consensus optimization over networks, *School of Science, Harbin Institute of Technology, Shenzhen*, Shenzhen, China
12/11/2018	Distributed consensus optimization over networks, *Department of Mathematics, South University of Science and Technology*, Shenzhen, China
12/05/2018	Distributed consensus optimization over networks, *Center for Mathematical Sciences, Huazhong University of Science and Technology*, Wuhan, China
12/03/2018	Distributed consensus optimization over networks, *School of Mathematical Sciences, Fudan University*, Shanghai, China
10/12/2018	Primal-dual algorithms for minimizing the sum of two or three functions, *Institute for Data and Decision Analytics, Chinese University of Hong Kong, Shenzhen*, Shenzhen, China
09/13/2018	Distributed consensus optimization, *Department of Electrical and Computer Engineering, Michigan State University*, East Lansing, MI
06/14/2018	Recent primal-dual algorithm for solving convex optimization problems in machine learning, *Los Alamos National Lab*, Los Alamos, NM
05/04/2018	Distributed consensus optimization, *Department of Mathematics, Hong Kong University of Science and Technology*, Hong Kong
03/07/2018	Primal-dual algorithms for the sum of two and three functions, *School of Science, Harbin Institute of Technology, Shenzhen*, Shenzhen, China

Teaching Experience

Rice University

Fall 2012	CAAM 654: Sparse Optimization

University of California, Los Angeles

Summer 2014	Math 164: Optimization
Fall 2014	Math 3B: Calculus for Life Sciences Students
Winter 2015	Math 115A: Linear Algebra
Spring 2015	Math 142: Mathematical Modeling

Michigan State University

Spring 2016	MTH 314: Matrix Algebra I
Fall 2016	CMSE 802: Methods in Computational Modeling
Spring 2017	CMSE 202: Computational Modeling Tools & Techniques
Fall 2017	CMSE 890: Optimization
Spring 2018	MTH 132: Calculus I
Spring 2019	CMSE/MTH 314: Matrix Algebra I
Spring 2019	CMSE 890: Geolocation Data Processing
Fall 2019	CMSE 890: Optimization
Spring 2020	CMSE/MTH 314: Matrix Algebra I
Spring 2021	CMSE 831: Computational Optimization
Fall 2021	CMSE 382: Optimization Methods in Data Science

Graduate Students

Ph.D. students

08/2016-07/2021	Ningyu Sha (CMSE + Statistics and Probability@MSU, co-advisor: Yuying Xie)
08/2017-present	Yao Li (Mathematics + CMSE@MSU)
08/2017-present	Xiaorui Liu (Computer Science and Engineering@MSU, advisor: Jiliang Tang)
01/2021-present	Zhuoqin Song (Mathematics@Fudan University, advisor: Lei Shi)

Master's students

08/2018-05/2021	Qi Lyu (CMSE@MSU)

Thesis Committees

Doctoral Guidance Committees:

2019	Yuning Hao (Statistics and Probability + CMSE, MSU), PhD Thesis topic: Machine learning and statistical methods in genomic data Advisor: Yuying Xie
2020	Tzu-Hsiang Lin (Kinesiology), PhD Thesis topic: Changing movement patterns using reinforcement learning Advisor: Rajiv Ranganathan
2021(expected)	Ze Zhang (Computer Science and Engineering), PhD Advisor: Yiyong Tong
2021(expected)	Jessie Micallef (Physics + CMSE), PhD Advisor: Tyce DeYoung
2021(expected)	Binbin Huang (CMSE), PhD Advisor: Jianrong Wang
2022(expected)	Mark Philip Roach (Math), PhD Advisor: Mark Iwen
2022(expected)	Stavros Vakalis (ECE), PhD Advisor: Jeff Nanzer
2022(ecpected)	Dylan Molho (CMSE), PhD Advisor: Yuying Xie
2023(expected)	Serge Mghabghab (ECE), PhD Advisor: Jeff Nanzer
2023(expected)	Jacob Hawkins (ECE + CMSE), PhD Advisor: Shanker Balasubramaniam

2023(expected)	Omkar H. Ramachandran (ECE + CMSE), PhD Advisor: Shanker Balasubramaniam

Postdocs and Visitors

09/2016-10/2019	Zhi Li (Postdoc: current & next position: East China Normal University)
02/2018-01/2019	Jun Feng (Visitor from Chengdu University of Technology)

Other Students

Summer 2014	Jerry Luo (UCLA) Kayla Shapiro (University of California, Berkeley) Hao-Jun Michael Shi (UCLA) Qi Yang (University of Southern California) Kan Zhu (UCLA) UCLA Research Experiences for Undergraduates (REU). Publication: "Practical algorithms for learning near-isometric linear embeddings", *SIAM Undergraduate Research Online,* 9 (2016), 178–195
Summer 2016	Siqi Zhang (South University of Science and Technology of China) MSU Internship in Global Engineering & Advanced Research (inGEAR). Working on asynchronous parallel computing.
09/2016-05/2018	Andrew Schmidt (MSU) Tyler Will (MSU) MSU Professorial Assistantship (PA) Program. Working on asynchronous parallel computing and decentralized optimization.
Spring 2017	Katja Oklejas (MSU) Qi Lyu (Xi'an Jiaotong University) Zhenru Wang (MSU) Spring Semester 2017 Undergraduate Research. Working on compressive sensing.
05/2017-12/2017	Katrina Gensterblum (MSU) MSU Engineering Summer Undergraduate Research Experience (EnSURE). Working on decentralized optimization and image processing.
Spring 2018	Huimin Hu (Xi'an Jiaotong University) Joseph Stafford (MSU) Spring Semester 2018 Undergraduate Research. Working on decentralized optimization with dynamic networks.
Fall 2019	Chenyu Zhou (Guangzhou University) Jamie Schmidt (MSU) Benjamin Tuckey (MSU) Fall Semester 2019 Undergraduate Research. Working on cyber attack prevention in decentralized optimization.
09/2020-	William Chettleburgh (MSU) MSU Professorial Assistantship (PA) Program. Working on robust low-rank matrix completion.
09/2020-05/2021	Xingyu Yang (MSU) Undergraduate Research. Working on robust low-rank matrix completion.
Spring 2021	Chijin Liu (Xi'an Jiaotong University) Wenyu Shang (MSU) Evan Bell (MSU) Spring Semester 2021 Undergraduate Research. Working on decentralized federated learning.

Professional Service

2019-2020	Guest Editor for Inverse Problems and Imaging
2010-present	Reviewer for Journals including: Applied and Computational Harmonic Analysis IEEE Signal Processing Letters IEEE Transactions on Image Processing IEEE Transactions on Medical Imaging IEEE Transactions on Pattern Analysis and Machine Intelligence IEEE Transactions on Signal Processing Inverse Problems and Imaging Journal of Scientific Computing Journal of the American Statistical Association Mathematical Programming Mathematics of Computation SIAM Journal on Imaging Sciences SIAM Journal on Optimization SIAM Journal on Scientific Computing
2016-present	Reviewer for Conferences including: International Conference on Learning Representations (ICLR) (2018, 2021) International Conference on Machine Learning (2018, 2020) Neural Information Processing Systems (NIPS) (2016, 2017, 2019)
2014-present	Reviewer for Proposals: Review Panel for National Science Foundation (2019) Ad-hoc reviewer for National Science Foundation (2018) Research Grants Council (RGC) of Hong Kong (2014-2020)
05/2014	Co-chair, Minisymposium on "Parallel and Distributed Computation in Imaging (I, II)", SIAM Conference on Image Science, Hong Kong
08/2015	Co-organizer, The International Workshop on Mathematical Image Processing, Nankai University, Tianjin, China
05/2016	Co-chair, Minisymposium on "Parallel and Distributed Data Compression and Reconstruction in Imaging and High Performance Computing (I, II)", SIAM Conference on Image Science, Albuquerque, NM
10/2016	Co-organizer, The 18th Midwest Optimization Meeting, Michigan State University, East Lansing, MI
05/2017	Co-chair, Minisymposium on "Optimizing Big Data: Acceleration, Randomization, and Parallelism (I, II, III)", SIAM Conference on Optimization, Vancouver, British Columbia, Canada
06/2019	Co-organizer, Workshop on Recent Developments on Mathematical/Statistical Approaches in Data Science, The University of Texas at Dallas, TX
04/2020	Chair of Organizing Committee, Frontiers in Computing and Data Science, Michigan State University, East Lansing, MI (Canceled due to COVID-19)
05/2020	Co-chair, Minisymposium on "Recent development in decentralized optimization algorithms", SIAM Conference on Optimization, Hong Kong (Canceled due to COVID-19)
07/2020	Co-chair, Minisymposium on "Graph-Based Approaches in Imaging Science (I, II)", SIAM Conference on Imaging Science, Toronto, Canada

Department and University Service

2015-2016	Member, CMSE Committee on Informatics
2015-2017	Member, CMSE Graduate Admission and Studies Committee
2016-2017	Member, Search Committee for Data Science

2016-2018	Member, CMSE Recruitment and Publicity Committee
2017-2018	Member, Search Committee for Big Data Astrophysics
2018-2019	Member, CMSE Awards Committee
2018-present	Member, Mathematics Library Committee
2018-2021	Chair, CMSE Frontier's Workshop Committee
2019-2020	Member, CMSE Recruitment and Publicity Committee
2019-present	Member, CMSE Undergraduate Admission and Studies Committee

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