

Damek Davis

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CV last updated: September 27, 2025

Educational background

University of California, Los Angeles, PhD in Mathematics, 09/2010 – 06/2015, Advisors: Stefano Soatto and Wotao Yin

University of California, Irvine, B.S. in Mathematics (summa cum laude), 09/2006 – 06/2010

Employment history

01/2025–Present	Associate Professor (with tenure), Department of Statistics and Data Science University of Pennsylvania
08/2024–12/2024	Visiting Research Scientist, Large Language Models and Transformers: Part 1 Simons Institute for the Theory of Computing
07/2024–01/2025	Visiting Associate Professor, Department of Statistics and Data Science University of Pennsylvania
07/2024–Present	Associate Professor (on leave), Operations Research and Information Engineering Cornell University
07/2022–07/2024	Associate Professor (with tenure), Operations Research and Information Engineering Cornell University
09/2022–12/2022	Senior Fellow, Program on Computational Microscopy Institute for Pure and Applied Mathematics
08/2017–10/2017	Visiting Research Scientist, Program on Bridging Continuous and Discrete Optimization Simons Institute for the Theory of Computing
07/2016–07/2022	Assistant Professor, Operations Research and Information Engineering, Cornell University Field Member, Mathematics, Cornell University Field Member, Applied Mathematics, Cornell University
07/2015–07/2016	NSF Mathematics Postdoctoral Fellow, University of California, Los Angeles Advisor: Wotao Yin

Publications

Refereed journal articles (published or forthcoming)

- J1. Damek Davis, Dmitriy Drusvyatskiy, Liwei Jiang: Active manifolds, stratifications, and convergence to local minima in nonsmooth optimization. arXiv preprint arXiv:2108.11832, *Foundations of Computational Mathematics*, (to appear)
- J2. Damek Davis, Dmitriy Drusvyatskiy, Zhan Shi: Stochastic optimization over proximally smooth sets. arXiv preprint arXiv:2002.06309, submitted to *SIAM Journal on Optimization*, (to appear)
- J3. Xingyuan Lu, Minh Pham, Elisa Negrini, Damek Davis, Stanley J. Osher, Jianwei Miao: Computational Microscopy beyond Perfect Lenses. *Physical Review E*, (to appear)

- J4. Jeongyeol Kwon, Wei Qian, Constantine Caramanis, Yudong Chen, Damek Davis, Nhat Ho: Global Optimality of the EM Algorithm for Mixtures of Two Linear Regression. *IEEE Transactions on Information Theory* (to appear)
- J5. Damek Davis, Mateo Diaz, Kaizheng Wang: Clustering a Mixture of Gaussians with Unknown Covariance. *Bernoulli* (to appear) (alphabetical)
- J6. Damek Davis, Dmitriy Drusvyatskiy, Liwei Jiang: Asymptotic normality and optimality in nonsmooth stochastic approximation. *The Annals of Statistics* (to appear) (alphabetical)
- J7. Damek Davis, Liwei Jiang: A local nearly linearly convergent first-order method for nonsmooth functions with quadratic growth. *Foundations of Computational Mathematics* (to appear) (alphabetical)
- J8. Damek Davis, Dmitriy Drusvyatskiy, Vasileios Charisopoulos: Stochastic algorithms with geometric step decay converge linearly on sharp functions. *Mathematical Programming*, vol. 207, pp. 145–190 (to appear)
- J9. Vasileios Charisopoulos, Damek Davis: A superlinearly convergent subgradient method for sharp semismooth problems. *Mathematics of Operations Research*, vol. 49, no. 3, pp. 1678–1709. (alphabetical)
- J10. Damek Davis: Variance reduction for root-finding problems. *Mathematical Programming*, vol. 197, pp. 375–410, 2023 (alphabetical)
- J11. Damek Davis, Mateo Díaz, Dmitriy Drusvyatskiy: Escaping strict saddle points of the Moreau envelope in nonsmooth optimization. *SIAM Journal on Optimization*, vol. 32, no. 3, pp. 1958–1983, 2022 (alphabetical)
- J12. Damek Davis, Dmitriy Drusvyatskiy: Conservative and semismooth derivatives are equivalent for semialgebraic maps. *Set-Valued and Variational Analysis*, vol. 33, pp. 453–463, 2022 (alphabetical)
- J13. Damek Davis, Dmitriy Drusvyatskiy, Lin Xiao, Junyu Zhang: From low probability to high confidence in stochastic convex optimization. *Journal of Machine Learning Research*, vol. 22, pp. 1–38, 2021 (alphabetical)
- J14. Damek Davis, Dmitriy Drusvyatskiy: Proximal methods avoid active strict saddles of weakly convex functions. *Foundations of Computational Mathematics*, vol. 22, pp. 561–606, 2022 (alphabetical)
- J15. Vasileios Charisopoulos, Yudong Chen, Damek Davis, Mateo Díaz, Lijun Ding, Dmitriy Drusvyatskiy: Low-rank matrix recovery with composite optimization: good conditioning and rapid convergence. *Foundations of Computational Mathematics*, vol. 21, pp. 1505–1593, 2021 (alphabetical)
- J16. Damek Davis, Dmitriy Drusvyatskiy: Graphical Convergence of Subgradients in Nonconvex Optimization and Learning. *Mathematics of Operations Research*, vol. 47, no. 1, pp. 209–231, 2022 (alphabetical)
- J17. Vasileios Charisopoulos, Damek Davis, Mateo Diaz, Dmitriy Drusvyatskiy: Composite optimization for robust rank one bilinear sensing. *IMA Journal on Information and Inference*, vol. 10, no. 2, pp. 333–396, 2021 (alphabetical)
- J18. Aleksandr Aravkin, Damek Davis: Trimmed Statistical Estimation via Variance Reduction. *Mathematics of Operations Research*, vol. 45, no. 1, pp. 292–322, 2020 (alphabetical)
- J19. Damek Davis, Dmitriy Drusvyatskiy, Sham Kakade, Jason D. Lee: Stochastic subgradient method converges on tame functions. *Foundations of Computational Mathematics*, vol. 20, pp. 119–154, 2020 (alphabetical)
- J20. Damek Davis, Dmitriy Drusvyatskiy, Courtney Paquette: The nonsmooth landscape of phase retrieval. *IMA Journal on Numerical Analysis*, vol. 4, no. 40, pp. 2652–2695, 2020 (alphabetical)
- J21. Damek Davis, Dmitriy Drusvyatskiy: Stochastic model-based minimization of weakly convex functions. *SIAM Journal on Optimization*, vol. 29, no. 1, pp. 207–239, 2019 (alphabetical)
- J22. Damek Davis, Benjamin Grimmer: Proximally Guided Stochastic Subgradient Method for Nonsmooth, Nonconvex Problems. *SIAM Journal on Optimization*, vol. 29, no. 3, pp. 1908–1930, 2019 (to appear) (alphabetical)
- J23. Damek Davis, Dmitriy Drusvyatskiy, Kellie J. MacPhee, Courtney Paquette: Subgradient methods for sharp weakly convex functions. *Journal of Optimization Theory and Applications*, vol. 179, pp. 962–982,

2018 (alphabetical)

- J24. Luis M. Briceño-Arias, Damek Davis: Forward-Backward-Half Forward Algorithm for Solving Monotone Inclusions. *SIAM Journal on Optimization*, vol. 28, no. 4, pp. 2839-2871, 2018 (alphabetical)
- J25. Damek Davis: Convergence rate analysis of the forward-Douglas-Rachford splitting scheme. *SIAM Journal on Optimization*, vol. 25, no. 3, pp. 1760-1786, 2015 (alphabetical)
- J26. Damek Davis: Convergence rate analysis of primal-dual splitting schemes. *SIAM Journal on Optimization*, vol. 25, no. 3, pp. 1912-1943, 2015 (alphabetical)
- J27. Damek Davis, Wotao Yin: Faster convergence rates of relaxed Peaceman-Rachford and ADMM under regularity assumptions. *Mathematics of Operations Research*, vol. 42, no. 3, pp. 783-805, 2016 (alphabetical)
- J28. Damek Davis, Wotao Yin: A Three-Operator Splitting Scheme and its Optimization Applications. *Set-Valued and Variational Analysis*, vol. 25, pp. 829-858, 2017 (alphabetical)
- J29. Rajiv Kumar, Oscar López, Damek Davis, Aleksandr Y. Aravkin, Felix J. Herrmann: Beating level-set methods for 5D seismic data interpolation: a primal-dual alternating approach. *IEEE Transactions on Computational Imaging* vol. 3, no. 2, pp. 264 - 274, 2017
- J30. Douglas R. Isaacson, Alexander V. Sadovsky, Damek Davis: Tactical Scheduling for Precision Air Traffic Operations: Past Research and Current Problems. *Journal of Aerospace Information Systems*, vol. 11, no. 4: pp. 234-257, 2014
- J31. Alexander V. Sadovsky, Damek Davis, Douglas R. Isaacson: Efficient computation of separation-compliant speed advisories for air traffic arriving in terminal airspace. *Journal of Dynamic Systems Measurement and Control* vol. 136, no. 4, pp. 041027-01-41027-10, 2014
- J32. Alexander V. Sadovsky, Damek Davis, Douglas R. Isaacson: Separation-compliant, optimal routing and control of scheduled arrivals in a terminal airspace. *Transportation Research Part C: Emerging Technologies* vol. 37, pp. 157-176, 2013
- J33. Damek Davis, Daqing Wan: Factorial and Noetherian Subrings of Power Series Rings: *Proceedings of the American Mathematical Society* vol. 139, no. 3, pp. 823-834, 2011 (alphabetical)

Refereed journal articles (submitted)

- S1. Damek Davis, Dmitriy Drusvyatskiy, Liwei Jiang: Gradient descent with adaptive stepsize converges (nearly) linearly under fourth-order growth. arxiv preprint arxiv:2409.19791
- S2. Libin Zhu, Damek Davis, Dmitriy Drusvyatskiy, Maryam Fazel: Iteratively reweighted kernel machines efficiently learn sparse functions preprint arxiv:2505.08277
- S3. Libin Zhu, Damek Davis, Dmitriy Drusvyatskiy, Maryam Fazel: Spectral norm bound for the product of random Fourier-Walsh matrices arxiv preprint arxiv:2504.03148

Other articles (conference papers, book chapters)

- C1. Chaoyue Liu, Dmitriy Drusvyatskiy, Mikhail Belkin, Damek Davis, Yi-An Ma: Aiming towards the minimizers: fast convergence of SGD for overparametrized problems. *NeurIPS* (2023)
- C2. Damek Davis, Dmitriy Drusvyatskiy, Yin Tat Lee, Swati Padmanabhan, Guanghao Ye: A gradient sampling method with complexity guarantees for Lipschitz functions in high and low dimensions. *NeurIPS* (2022) (alphabetical)
- C3. Damek Davis, Dmitriy Drusvyatskiy: High probability guarantees for stochastic convex optimization. *In Conference on Learning Theory* (2020) (alphabetical)
- C4. Jeongyeol Kwon, Wei Qian, Constantine Caramanis, Yudong Chen, Damek Davis: Global Convergence of EM Algorithm for Mixtures of Two Component Linear Regression. *Conference on Learning Theory* (2019)
- C5. Damek Davis, Brent Edmunds, Madeleine Udell: The Sound of APALM Clapping: Faster Nonsmooth Nonconvex Optimization with Stochastic Asynchronous PALM. *Neural Information Processing Systems* (2016)

- C6. Jingming Dong, Nikos Karianakis, Damek Davis, Joshua Hernandez, Jonathan Balzer, Stefano Soatto: Multiview Feature Engineering and Learning. *In Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition* (2015)
- C7. Damek Davis, Jonathan Balzer, Stefano Soatto: Asymmetric sparse kernel approximations for large-scale visual search. *In Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition* (2014)

Invited articles

1. Damek Davis, Dmitriy Drusvyatskiy: Subgradient methods under weak convexity and tame geometry. *SIAG/OPT News and Views*, vol. 28, no. 1, pp. 1-10, 2020. (alphabetical)
2. Damek Davis: Convergence Rate Analysis of Several Splitting Schemes. *INFORMS OS Today* vol. 5, no. 1, pp. 20-25, 2015

Reports

- R1. Damek Davis, Tao Jiang: A linearly convergent Gauss-Newton subgradient method for ill-conditioned problems. *arXiv preprint*, arXiv:2212.13278, 2023 (alphabetical)
- R2. Damek Davis, Dmitriy Drusvyatskiy, Kellie J. MacPhee: Stochastic model-based minimization under high-order growth. *arXiv preprint*, arXiv:1807.00255, 2018 (alphabetical)
- R3. Damek Davis: An $O(n \log(n))$ algorithm for projecting onto the ordered weighted norm ball. *arXiv preprint*, arXiv:1505.00870, 2015

PhD advisees who have graduated from Cornell

1. Tao Jiang (Graduated 2025. First position: Postdoc at Meta AI)
2. Liwei Jiang. (Graduated 2024. First position: Postdoc, Georgia Tech, Industrial and Systems Engineering. Second Position: Assistant Professor, Purdue, Industrial Engineering)
3. Vasilis Charisopoulos (Graduated 2023. First position: Postdoc, University of Chicago Data Science Institute. Second Position: Assistant Professor, University of Washington, Seattle, Electrical and Computer Engineering)
4. Mateo Díaz (Graduated 2021. First position: Postdoc, Caltech, Computing and Mathematical Sciences. Second Position: Assistant Professor, Johns Hopkins University, Applied Mathematics and Statistics and Mathematical Institute for Data Science)
5. Ben Grimmer (Graduated 2021; co-advised with J. Renegar. First Position: Assistant Professor, Johns Hopkins University, Seattle, Applied Mathematics and Statistics)

PhD students whose doctoral committees I have served on

1. Tonghua Tian. (Graduated 2024. First position: Aquatic Capital Management)
2. Miaolan Xie. (Graduated 2024. First position: Assistant Professor at Purdue, Department of Industrial Engineering)
3. Song (Sam) Zhou. (Graduated 2023. First position: Flexport)
4. Tâm Lê. (Graduated 2023. External reviewer/member at Toulouse 1 University Capitole. First position: Postdoc in optimization and machine learning at Université Grenoble Alps)
5. Qinru Shi. (Graduated 2022. First position: Huawei)
6. Calvin Wylie. (Graduated 2019. First position: Wayfair)

Masters of engineering/finance projects supervised at Cornell

1. Ruifan Chen, Lang Lei, Mert Onengut, Louis St-Pierre, Jing Zhang
Sponsor: Wegmans

2021-2022

2. Yixiao He, Xiaoxiang Ma, Yuke Wu, Jiaqi Zhang <i>Sponsor:</i> Pitney Bowes	2020-2021
3. Percy Zhao, Iris Zhao, Foster Zhen, Betsy Fu <i>Sponsor:</i> Equifax	2019-2020
4. Chenxin Guo, Dajun Luo, Liyang Du, Zuolin Shen <i>Sponsor:</i> Equifax	2018-2019
5. Anne Ng, Antong Su, Charlotte Wang, Umut Yildiz <i>Sponsor:</i> Equifax	2017-2018
6. Henry Zhou, Juan Duran-Vara, Elijah Huang <i>Sponsor:</i> Putnam Investments	2017
7. Kendrick Cancio, Karen Cronk, Alexis Rouge Carrassat <i>Sponsor:</i> Mitre	2016-2017

Invited talks

- T1. "Exponentially faster gradient methods in the presence of ravines" *University of California, San Diego HDSI*, San Diego, California, March. 2025.
- T2. "Exponentially faster gradient methods in the presence of ravines" *Simons Institute for Theoretical Computer Science*, Berkeley, California November. 2024.
- T3. "Exponentially faster gradient methods in the presence of ravines" *Stanford ISL Seminar*, Stanford, California November. 2024.
- T4. "Nonconvex Optimization for Statistical Estimation and Learning: Beyond Smoothness and Convexity" *University of Southern California USC Epstein Seminar Series*, Los Angeles, California, Sep. 2024.
- T5. "Nonconvex Optimization for Statistical Estimation and Learning: Beyond Smoothness and Convexity" *Wharton Statistics and Data Science*, Philadelphia, Pennsylvania, Apr. 2024.
- T6. "Nonconvex Optimization for Statistical Estimation and Learning: Beyond Smoothness and Convexity" *UCLA*, Los Angeles, California, Jan. 2024.
- T7. "Leveraging "partial" smoothness for faster convergence in nonsmooth optimization," *Rob Freund's birthday workshop*, Cambridge, Massachusetts, Aug. 2023.
- T8. "A nearly linearly convergent first-order method for nonsmooth functions with quadratic growth," *Continuous Optimization Workshop, Foundations of Computational Mathematics 2023*, Paris, France, Jun. 2023.
- T9. "A nearly linearly convergent first-order method for nonsmooth functions with quadratic growth," *SIAM conference on optimization*, Seattle, Washington, Jun. 2023.
- T10. "Stochastic model-based minimization of weakly convex functions," *SIAM conference on optimization (prize lecture)*, Seattle, Washington, Jun. 2023.
- T11. "Leveraging "partial" smoothness for faster convergence in nonsmooth optimization," *Distinguished Seminar in Optimization & Data*, University of Washington, Seattle, Washington, Apr. 2023.
- T12. "Leveraging "partial" smoothness for faster convergence in nonsmooth optimization," *CMX Lunch Seminar, Caltech*, Pasadena, California, Feb. 2023.
- T13. "Leveraging "partial" smoothness for faster convergence in nonsmooth optimization," *Level Set Seminar, UCLA*, Los Angeles, California, Dec. 2022.
- T14. "Leveraging "partial" smoothness for faster convergence in nonsmooth optimization," *Seminar, IPAM workshop on computational microscopy*, Los Angeles, California, Nov. 2022.
- T15. "Leveraging "partial" smoothness for faster convergence in nonsmooth optimization," *Seminar, UCLA Department of Computer Science*, Los Angeles, Nov. 2022.
- T16. "Leveraging "partial" smoothness for faster convergence in nonsmooth optimization," *ISL seminar, Stanford*, Palo Alto, California, Nov. 2022.
- T17. "Leveraging "partial" smoothness for faster convergence in nonsmooth optimization," *Seminar, Northwestern University Department of Statistics and Data Science*, Evanston, Illinois, Nov. 2022.

- T18. "A nearly linearly convergent first-order method for nonsmooth functions with quadratic growth," *OPTML++ seminar, MIT, Virtual*, Nov. 2022.
- T19. "A nearly linearly convergent first-order method for nonsmooth functions with quadratic growth," *International Conference on Continuous Optimization*, Lehigh, Pennsylvania, Jul. 2022.
- T20. "Avoiding saddle points in nonsmooth optimization," *Workshop on Robustness and Resilience in Stochastic Optimization and Statistical Learning: Mathematical Foundations*, Ettore Majorana Foundation And Centre For Scientific Culture, Erice, Italy, May 2022.
- T21. "Avoiding saddle points in nonsmooth optimization," *Theoretical Computer Science Seminar, University at Illinois, Chicago*, Virtual, Feb. 2022.
- T22. "Plenary Talk: Avoiding saddle points in nonsmooth optimization," *OPT2021 NeurIPS Workshop*, Virtual, Dec. 2021.
- T23. "Avoiding saddle points in nonsmooth optimization," *One World Optimization Seminar*, Virtual, Nov. 2021.
- T24. "Avoiding saddle points in nonsmooth optimization," *SIAM Optimization Conference*, Virtual, Jul. 2021.
- T25. "Nonconvex Optimization for Estimation and Learning: Dynamics, Conditioning, and Nonsmoothness," *CRM Applied Math Seminar, McGill University*, Montreal, Quebec, Canada, Nov. 2020.
- T26. "Proximal methods avoid active strict saddles of weakly convex functions," *Foundations of Computational Mathematics (Cancelled due to COVID)*, Vancouver, Canada, Jun. 2020.
- T27. "Stochastic Algorithms with Geometric Step Decay Converge Linearly on Sharp Functions," *SIAM Mathematics of Data Science (sessions cancelled due to COVID)*, Cincinnati, Ohio, May 2020.
- T28. "Stochastic model-based minimization of weakly convex functions," *INFORMS Optimization Society Young Researchers Award Presentation*, Seattle, Washington, Nov. 2019.
- T29. "Low-rank matrix recovery with composite optimization: good conditioning and rapid convergence," *INFORMS Annual Meeting*, Seattle, Washington, Nov. 2019.
- T30. "Stochastic subgradient method converges on tame functions," *INFORMS Annual Meeting*, Seattle, Washington, Nov. 2019.
- T31. "Stochastic subgradient method converges on tame functions," *ICCOPT Best Paper Prize for Young Researchers in Continuous Optimization Finalist*, Berlin, Germany, Aug. 2019.
- T32. "Nonsmooth and nonconvex optimization under statistical assumptions," *Operations Research and Financial Engineering Optimization Seminar, Princeton University*, Princeton, New Jersey, Apr. 2019.
- T33. "Stochastic Methods for Non-smooth Non-convex Optimization," *Annual Allerton Conference on Communication, Control, and Computing*, Urbana-Champaign, Illinois, Sept. 2018.
- T34. "Algorithmic Foundations of Huge-Scale Nonsmooth, NonConvex Optimization with Applications in Data Science," *AFOSR Optimization and Discrete Math Program Review*, Arlington, Virginia, Aug. 2018.
- T35. "Stochastic Methods for Non-smooth Non-convex Optimization," *TRIPODS/MOPTA Conference*, Lehigh, Pennsylvania, Aug. 2018.
- T36. "Convergence rates of stochastic methods for nonsmooth nonconvex problems," *International Symposium on Mathematical Programming (ISMP) (cancelled due to Illness)*, Bordeaux, France, Jul. 2018.
- T37. "Stochastic Methods for Non-smooth Non-convex Optimization," *DIMACS Workshop on ADMM and Proximal Splitting Methods in Optimization (cancelled due to Illness)*, Seattle, Washington, Jun. 2018.
- T38. "Stochastic Methods for Non-smooth Non-convex Optimization," *West Coast Optimization Meeting*, Seattle, Washington, May 2018.
- T39. "Recent progress on nonsmooth nonconvex optimization under statistical assumptions," *Operations Research Center Seminar, MIT*, Cambridge, Massachusetts, Apr. 2018.
- T40. "Proximally Guided Stochastic Subgradient Method for Nonsmooth, Nonconvex Problems," *INFORMS Annual Meeting*, Houston, Texas, Nov. 2017.
- T41. "Trimmed Statistical Estimation via Variance Reduction," *EUROPT continuous optimization working group of EURO (The Association of European Operational Research Societies)*, Montreal, Quebec, Canada, Jul. 2017.

- T42. "A SMART Stochastic Algorithm for Nonconvex Optimization with Applications to Robust Machine Learning," *Google Brain Seminar*, New York, New York, Jul. 2017.
- T43. "A SMART Stochastic Algorithm for Nonconvex Optimization with Applications to Robust Machine Learning," *Applied Mathematics Colloquium, UCLA*, Los Angeles, California, May 2017.
- T44. "A SMART Stochastic Algorithm for Nonconvex Optimization with Applications to Robust Machine Learning," *SIAM Optimization Conference*, Vancouver, Canada, May 2017.
- T45. "Fast Algorithms for Robust Machine Learning," *Google Internal Seminar*, New York, New York, Jul. 2016.
- T46. "SMART: The Stochastic Monotone Aggregated Root-Finding Algorithm," *INFORMS International Meeting*, Waikoloa, Hawaii, Jun. 2016.
- T47. "A Three-Operator Splitting Scheme and its Optimization Applications," *SIAM Conference on Imaging Science*, Albuquerque, New Mexico, May 2016.
- T48. "SMART: The Stochastic Monotone Aggregated Root-Finding Algorithm," *Systems, Information, Learning and Optimization (SILO) Seminar, University of Wisconsin, Madison*, Madison, Wisconsin, Feb. 2016.
- T49. "A Three-Operator Splitting Scheme and its Optimization Applications," *TOPS Optimization Seminar, University of Washington*, Seattle, Washington, Oct. 2015.
- T50. "A Three-Operator Splitting Scheme and its Optimization Applications," *International Symposium on Mathematical Programming (ISMP)*, Pittsburgh, Pennsylvania, Jul. 2015.
- T51. "Decentralized Optimization via Operator Splitting," *Bell Labs Prize Innovathon @ Alcatel-Lucent*, Murray Hill, New Jersey, Jun. 2015.
- T52. "A Three-Operator Splitting Scheme and its Optimization Applications," *Linear Algebra and Optimization Seminar, Stanford University*, Stanford, California, May 2015.
- T53. "The Design and Analysis of Large-scale Operator-splitting Schemes," *Wisconsin Institute for Discovery Colloquium, University of Wisconsin, Madison*, Madison, Wisconsin, Feb. 2015.
- T54. "The Design and Analysis of Large-scale Operator-splitting Schemes," *Combinatorics and Optimization Seminar, University of Waterloo*, Waterloo, Ontario, Canada, Jan. 2015.

Teaching at Cornell

ORIE 4740 Statistical Data Mining, Cornell University Dept: Operations Research and Information Engineering	Spring 2024
ORIE 6300 Mathematical Programming I, Cornell University Dept: Operations Research and Information Engineering Lecture notes available at the following link: https://damek.github.io/teaching/orie6300/ORIE6300Fall2023notes.pdf	Fall 2023
Engineering 1050 Freshman Engineering Seminar, Cornell University Dept: Operations Research and Information Engineering	Fall 2023
ORIE 4740 Statistical Data Mining, Cornell University Dept: Operations Research and Information Engineering	Spring 2022
ORIE 7391 Selected Topics in Mathematical Programming, Cornell University Dept: Operations Research and Information Engineering	Fall 2021
ORIE 6340 Mathematics of Data Science, Cornell University Dept: Operations Research and Information Engineering Course materials available at the following link: https://www.dropbox.com/sh/bvxav1pc2nr5n6x/AABn7gEfuyY7qD_ZxUQzJwpma?dl=0	Spring 2021
ORIE 3300 Optimization I, Cornell University Dept: Operations Research and Information Engineering	Fall 2020
Engineering 1050 Freshman Engineering Seminar, Cornell University Dept: Operations Research and Information Engineering	Fall 2020
ORIE 4740 Statistical Data Mining, Cornell University Dept: Operations Research and Information Engineering	Spring 2020

ORIE 6300 Mathematical Programming I, Cornell University Dept: Operations Research and Information Engineering Lecture notes available at the following link: https://damek.github.io/teaching/orie6300/ORIE6300Fall2023notes.pdf	Fall 2019
ORIE 3300 Optimization I, Cornell University Dept: Operations Research and Information Engineering	Fall 2018
Math 2940 Linear Algebra for Engineers, Cornell University Dept: Mathematics	Spring 2018
ORIE 4350 Introduction to Game Theory, Cornell University Dept: Operations Research and Information Engineering	Spring 2017
ORIE 6300 Mathematical Programming I, Cornell University Dept: Operations Research and Information Engineering	Fall 2016

Service at Cornell

- ORIE Dept Director Appointment Committee, Cornell University, 2021, 2024
 COR-OPT Optimization Seminar, Cornell University, 2018-2024
 Graduate Admissions Committee, Cornell University, 2018-2020, 2022, 2024
 Masters of Engineering Admissions Committee, Cornell University, 2016, 2021, 2022
 Colloquium Co-organizer, Cornell University, Center for Applied Math, 2017-2018
 Colloquium Co-organizer, Cornell University, Operations Research and Information Engineering, 2016, 2020

Selected professional service

- Associate Editor, Mathematical Programming, 2022-Present
 Associate Editor, Foundations of Computational Mathematics, 2023-Present
 Stream co-chair for Nonsmooth Optimization, International Conference on Continuous Optimization, Lehigh University, 2022
 Cluster co-chair for Continuous Optimization, International Symposium on Mathematical Programming, Beijing, China, 2020
 Track co-chair for Optimization in Data Science, INFORMS Optimization Society 2020 Meeting, Clemson University, 2019-2020
 OPT2016 Program Committee Member, Neural Information Processing Systems, Barcelona, Spain, 2016

Honors and awards

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| SIAM Activity Group on Optimization Best Paper Prize | 2023 |
| NSF CAREER Award
Budget: \$454,000 | 2020 |
| Sloan Research Fellowship in Mathematics
Budget: \$75,000 | 2020 |
| Young Researchers Prize, INFORMS Optimization Society | 2019 |
| Finalist: Best Paper Prize for Young Researchers in Continuous Optimization (One of Four), ICCOPT 2019 | 2019 |
| A. W. Tucker Dissertation Prize Finalist (One of Two), Mathematical Optimization Society | 2018 |
| NSF Mathematics Postdoctoral Fellowship
Budget: \$150,000 | 2015 |
| Dissertation Prize, Pacific Journal of Mathematics | 2015 |

Student Paper Prize, INFORMS Optimization Society	2014
NSF Graduate Research Fellowship	2010
Elected to Phi Beta Kappa (Junior Year)	2009