Anastasios N. Angelopoulos

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with applications to medical and computational imaging.

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EDUCATION

University of California, Berkeley — Ph.D., Electrical Engineering & Computer Science
GPA: 4.00, Advisors: Michael I. Jordan, Jitendra Malik — 2019–Current

Stanford University — B.S., Electrical Engineering
GPA: 4.05 Advisors: Stephen Boyd, Gordon Wetzstein — 2016 –2019

BOOKS

[1] **A. N. Angelopoulos**, R. Barber, and S. Bates, *Theoretical Foundations of Conformal Prediction.* Cambridge University Press, 2025, In contract (to appear).

[10] **A. N. Angelopoulos** and S. Bates, *Conformal Prediction: A Gentle Introduction.* Delft, Netherlands: Now Publishers, Inc., 2023.

PUBLICATIONS ⅁

[2] **A. N. Angelopoulos**, S. Bates, A. Fisch, L. Lei, and T. Schuster, "Conformal risk control", *International Conference on Learning Representations*, 2024, Spotlight paper (top 5%).

[3] **A. N. Angelopoulos***, R. F. Barber, and S. Bates, "Online conformal prediction with decaying step sizes", *arXiv preprint arXiv:2402.01139*, 2024.

[4] **A. N. Angelopoulos***, S. R. Pomerantz*, S. Do*, S. Bates, C. P. Bridge, D. C. Elton, M. H. Lev, R. G. Gonzalez, M. I. Jordan, and J. Malik, "Conformal triage for medical imaging AI deployment", *medRxiv*, pp. 2024–02, 2024.

[5] P. Boyeau, **A. N. Angelopoulos**, N. Yosef, J. Malik, and M. I. Jordan, "Autoeval done right: Using synthetic data for model evaluation", *arXiv preprint arXiv:2403.07008*, 2024.

[6] W.-L. Chiang, L. Zheng, Y. Sheng, **A. N. Angelopoulos**, T. Li, D. Li, H. Zhang, B. Zhu, M. Jordan, J. E. Gonzalez, *et al.*, "Chatbot arena: An open platform for evaluating LLMs by human preference", *arXiv preprint arXiv:2403.04132*, 2024.

[7] A. Kohli*, **A. N. Angelopoulos***, and L. Waller, "Wavefront randomization improves deconvolution", *arXiv preprint arXiv:2402.07900*, 2024.

[8] D. T. Nguyen, R. Pathak, **A. N. Angelopoulos**, S. Bates, and M. I. Jordan, "Data-adaptive tradeoffs among multiple risks in distribution-free prediction", *arXiv preprint arXiv:2403.19605*, 2024.

[9] C. T. Ye, J. Han, K. Liu, **A. N. Angelopoulos**, L. Griffith, K. Monakhova, and S. You, "Leveraging uncertainty quantification in adaptive multiphoton microscopy acquisition", in *Computational Optical Imaging and Artificial Intelligence in Biomedical Sciences*, SPIE, vol. 12857, 2024, pp. 23–26.

[11] **A. N. Angelopoulos**, E. Candes, and R. Tibshirani, "Conformal PID control for time series prediction", in *Neural Information Processing Systems*, 2023.

[12] **A. N. Angelopoulos***, S. Bates*, C. Fannjiang*, M. I. Jordan*, and T. Zrnic*, "Prediction-powered inference", *Science*, vol. 382, no. 6671, pp. 669–674, Nov. 2023.

[13] **A. N. Angelopoulos***, J. C. Duchi*, and T. Zrnic*, "PPI++: Efficient prediction-powered inference", *arXiv preprint arXiv:2311.01453*, 2023.

[14] **A. N. Angelopoulos***, K. Krauth*, S. Bates, Y. Wang, and M. I. Jordan, "Recommendation systems with distribution-free reliability guarantees", Proceedings of Machine Learning Research — Conformal and Probabilistic Prediction with Applications, vol. 204, pp. 175–193, 2023, Alexey Chervonenkis Best Paper Award.

[15] T. Ding, **A. N. Angelopoulos**, S. Bates, M. Jordan, and R. Tibshirani, "Class-conditional conformal prediction with many classes", in *Thirty-seventh Conference on Neural Information Processing Systems*, 2023.

[16] S. Feldman*, B.-S. Einbinder*, S. Bates, **A. N. Angelopoulos**, A. Gendler, and Y. Romano, "Conformal prediction is robust to dispersive label noise", in *Conformal and Probabilistic Prediction with Applications*, PMLR, 2023, pp. 624–626.

[17] H. Huang, S. Sharma, A. Loquercio, **A. N. Angelopoulos**, K. Goldberg, and J. Malik, "Conformal policy learning for sensorimotor control under distribution shifts", *International Conference on Robotics and Automation*, 2023.

[18] J. Lekeufack*, **A. N. Angelopoulos***, A. Bajcsy*, M. I. Jordan**, and J. Malik**, "Conformal decision theory: Safe autonomous decisions without distributions", *International Conference on Robotics and Automation*, 2023.

[19] **A. N. Angelopoulos***, S. Bates*, T. Zrnic*, and M. I. Jordan, "Private Prediction Sets", *Harvard Data Science Review*, 2022.

[20] **A. N. Angelopoulos***, A. P. Kohli*, S. Bates, M. Jordan, J. Malik, T. Alshaabi, S. Upadhyayula, and Y. Romano, "Image-to-image regression with distribution-free uncertainty quantification and applications in imaging", in *International Conference on Machine Learning*, 2022, pp. 717–730.

[21] C. Fannjiang, S. Bates, **A. N. Angelopoulos**, J. Listgarten, and M. I. Jordan, "Conformal prediction under feedback covariate shift for biomolecular design", *Proceedings of the National Academy of Sciences*, vol. 119, no. 43, e2204569119, 2022.

[22] C. Lu*, **A. N. Angelopoulos***, and S. Pomerantz, "Improving trustworthiness of AI disease severity rating in medical imaging with ordinal conformal prediction sets", in *International Conference on Medical Image Computing and Computer-Assisted Intervention*, Springer, 2022, pp. 545–554.

[23] S. Sankaranarayanan, **A. N. Angelopoulos**, S. Bates, Y. Romano, and P. Isola, "Semantic uncertainty intervals for disentangled latent spaces", *Neural Information Processing Systems*, vol. 36, 2022.

[24] K. Wang, **A. N. Angelopoulos**, A. D. Goyeneche, A. P. Kohli, E. Shimron, S. Yu, J. Malik, and M. Lustig, "Rigorous Uncertainty Estimation for MRI Reconstruction", *Joint Meeting of the International Society for Magnetic Resonance in Medicine*, 2022, Oral.

[25] M. A. Werner, **A. N. Angelopoulos**, S. Bates, and M. I. Jordan, "Dynamic Thresholding for Online Distributed Data Selection", *arXiv preprint arXiv:2201.10547*, 2022.

[26] **A. N. Angelopoulos**, S. Bates, E. J. Candès, M. I. Jordan, and L. Lei, "Learn then Test: Calibrating Predictive Algorithms to Achieve Risk Control", *arXiv preprint arXiv:2110.01052*, 2021.

[27] **A. N. Angelopoulos***, S. Bates*, J. Malik, and M. I. Jordan, "Uncertainty Sets for Image Classifiers using Conformal Prediction", *International Conference on Learning Representations*, 2021, Spotlight oral.

[28] **A. N. Angelopoulos***, J. N. Martel*, A. P. Kohli, J. Conradt, and G. Wetzstein, "Event-Based, Near-Eye Gaze Tracking Beyond 10,000Hz", *IEEE Transactions on Visualization and Computer Graphics*, 2021, Oral at IEEEVR conference and TVCG special issue.

[29] S. Bates*, **A. N. Angelopoulos***, L. Lei*, J. Malik, and M. I. Jordan, "Distribution-Free, Risk-Controlling Prediction Sets", *Journal of the ACM*, vol. 68, no. 8, Sep. 2021.

[30] A. Kohli*, **A. N. Angelopoulos***, S. You, and L. Waller, "Shift-Variant Deblurring for Rotationally Symmetric Systems", *Computational Optical Sensing and Imaging, Optical Society of America*, 2021.

[31] A. Kohli*, **A. N. Angelopoulos***, S. You, K. Yanny, and L. Waller, "Linear revolution-invariance: Modeling and deblurring spatially-varying imaging systems", *Computational Optical Sensing and Imaging*, 2021, Also appeared as "Shift-Variant Deblurring for Rotationally Symmetric Systems", updated version on arXiv:2206.08928.

[32] **A. N. Angelopoulos**, R. Pathak, R. Varma, and M. I. Jordan, "On Identifying and Mitigating Bias in the Estimation of the COVID-19 Case Fatality Rate", *Harvard Data Science Review*, Special Issue 1 2020.

[33] R. Konrad, **A. N. Angelopoulos**, and G. Wetzstein, "Gaze-Contingent Ocular Parallax Rendering for Virtual Reality", *ACM Transactions on Graphics (TOG)*, vol. 39, no. 2, pp. 1–12, 2020.

[34] **A. N. Angelopoulos**, H. Ameri, D. Mitra, and M. Humayun, "Enhanced Depth Navigation Through Augmented Reality Depth Mapping in Patients with Low Vision", *Scientific Reports, Nature Publishing Group*, vol. 9, no. 1, pp. 1–10, 2019.

[35] **A. N. Angelopoulos**, *Universal Pickup*, US Patent 8,993,868, Mar. 2015.

Scholarships and Awards

1.	Leon O. Chua Department Award	2024
2.	Alexey Chervonenkis Best Paper Award	2023
3.	Outstanding Graduate Student Instructor Award (Top 10% of GSIs)	2023
4.	NSF Graduate Research Fellowship	2021–2024
5.	Berkeley Fellowship	2019–2021
6.	Frederick Emmons Terman Award (Top 30 at Stanford)	2019
7.	Phi Beta Kappa	2019
8.	Tau Beta Pi	2019
9.	Departmental Distinction in Electrical Engineering	2019
10.	US National Debate Champion, Member of US National Debate Team	2013–2016

Service

1. **Tutor** for Berkeley Underground Scholars program, 2023 and 2024. This program is building a prison-to-university pipeline and supports formerly incarcerated and justice-impacted students at UC Berkeley.

2. **Organizer** of ICML Workshop on Distribution-Free Uncertainty Quantification 2022

3. **Organizer** of ICML Workshop on Distribution-Free Uncertainty Quantification 2021

4. **Reviewer** for Annals of Statistics, Biometrika (x2), the Harvard Data Science Review, Foundations and Trends in Machine Learning, ICRA 2024, L4DC 2023, ICML 2021/2022, JMLR (x4), Machine Learning, JRSS-B, PLOS One, SIGGRAPH 2021, SIGGRAPH Asia 2021, NeurIPS 2021/2022/2023, NeurIPS 2023 ethics review, ISMAR 2022, and Scientific Reports

5. **Top Reviewer** for NeurIPS 2022.

6. **Program Committee** member for COPA 2023 and UAI 2023

7. **Mentor** for BAIR undergraduate mentoring program 2022.

8. **Organizer** of the International Seminar on Distribution-Free Statistics