

ANDREW K. SAYDJARI

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PUBLICATIONS

I am an author on **26+ papers** that have **821+** citations (h-index=12). This includes:

10+ papers as (co-)lead author with 266+ citations

6+ papers with **significant contributions** with 254+ citations

Most of my papers can be found online on [ADS](https://arxiv.org), though citations outside astronomy are missing.

My ORCID is [0000-0002-6561-9002](https://orcid.org/0000-0002-6561-9002).

Publications as (Co-)Lead Author:

1. Zucker, C. & Saydjari, A. K. & Speagle, J. S.; Schlafly, E. F.; Green, G. M.; Benjamin, R.; Peek, J. E. G.; Edenhofer, G.; Goodman, A.; Kuhn, M. A.; Finkbeiner, D. P.
2025, arXiv:2503.02657 (submitted ApJ) Postdoc
[A Deep, High-Angular Resolution 3D Dust Map of the Southern Galactic Plane](#)
2. Saydjari, A. K.; Finkbeiner, D. P.; Wheeler, A. J.; Holtzman, J. A.; Wilson, J. C.; Casey, A. R.; Sánchez-Maes, S.; Brownstein, J. R.; Hogg, D. W.; Blanton, M.
2025, ApJ, 169, 19. Postdoc
[Improving Radial Velocities by Marginalizing over Stars and Sky: Achieving 30 m/s RV Precision for APOGEE in the Plate Era](#)
3. Saydjari, A. K.; Uzsoy, A.S.; Zucker, C.; Peek, J. E. G.; Finkbeiner, D. P.
2023, ApJ, 954, 141. Grad
[Measuring the 8621 Å Diffuse Interstellar Band in Gaia DR3 RVS Spectra: Obtaining a Clean Catalog by Marginalizing over Stellar Types](#)
4. Saydjari, A. K.; Schlafly, E. F.; Lang, D.; Meisner, A. M.; Green, G. M.; Zucker, C.; Zelko, I.; Speagle, J. S.; Daylan, T.; Lee, A.; Valdes, F.; Schlegel, D.; Finkbeiner, D. P.
2023, ApJS, 264, 2. Grad
[The Dark Energy Camera Plane Survey 2 \(DECaPS2\): More Sky, Less Bias, and Better Uncertainties](#)
5. Saydjari, A. K.; Finkbeiner, D. P.
2022, ApJ, 933, 155. Grad
[Photometry on Structured Backgrounds: Local Pixel-wise Infilling by Regression](#)
6. Saydjari, A. K.; Finkbeiner, D. P.
2022, TPAMI, 45, 2. Grad
[Equivariant Wavelets: Fast Rotation and Translation Invariant Wavelet Scattering Transforms](#)
7. Saydjari, A. K.; Portillo, S. K. N.; Slepian, Z.; Kahraman, S.; Burkhart, B.; Finkbeiner, D. P.
2021, ApJ, 910, 122. Grad
[Classification of Magnetohydrodynamic Simulations using Wavelet Scattering Transforms](#)
8. Saydjari, A. K. & Weis, P.; Wu, S.
2016, Adv. Energy Mat., 7, 1601622. Undergrad
[Spanning the Solar Spectrum: Azopolymer Solar Thermal Fuels for Simultaneous UV and Visible Light Storage](#)

Cover Article: [AEM](#)

9. **Saydjari, A. K.**; Pietron, J. J.; Simpkins, B. S.
2015, *Electroanalysis*, 27, 1960-1967. HS
[Electrochemical Deposition and Spectroelectro-chemical Response of Bromophenol Blue Films on Gold](#)
10. **Saydjari, A. K.**; Long, J.; Dressick, W.; Simpkins, B. S.
2014, *Chem. Phys. Lett.*, 608, 328-333. HS
[Optical Interference Effect Corrections for Absorbance Spectra of Layer-by-Layer Thin Films Bearing Covalently Bound Dye](#)

Publications with Significant Contributions:

11. Uzsoy, A. M.; **Saydjari, A. K.**; et al. [38 additional co-authors]
2025, arXiv:2503.03138 (submitted AJ) Postdoc
[Bayesian Component Separation for DESI LAE Automated Spectroscopic Redshifts and Photometric Targeting](#)
Co-advised the application of MADGICS to DESI spectra (prior refinement, error calibration, etc.)
12. Lesser, O.; **Saydjari, A. K.**; Wesson M.; Yacoby, A.; Oreg, Y.
2021, *PNAS*, 118, 27. Grad
[Phase-induced topological superconductivity in a planar heterostructure](#)
Designed and ran experiments in Kwant to show applicability for realistic device densities.
13. Alegria, L.D.; Böttcher, C.G.; **Saydjari, A. K.**; Pierce, A.T.; Lee, S.H.; Harvey, S.P.; Vool, U.; Yacoby, A.;
2021, *Nature Nanotechnology*, 16, 404-408. Grad
[High-energy quasiparticle injection into mesoscopic superconductors](#)
Helped fabricate devices, collected data on dil. fridge I operated, and analyzed data/models.
14. Charboneau, D.J.; Brudvig, G.W.; Hazari, N.; Lant, H.M.C; **Saydjari, A. K.**
2019, *ACS Catal.*, 9, 3228-3241. Undergrad
[Development of an Improved System for the Carboxylation of Aryl Halides through Mechanistic Studies](#)
M.Sc. thesis work. Designed experiments, worked up reactions and NMR, analyzed data.
15. McKee, A.; Solano, M.; **Saydjari, A. K.**; Bennett, C.J.; Hud, N.V.; Orlando, T.M.
2018, *ChemBioChem*, 19, 1-6. Undergrad
[A Possible Path to Prebiotic Peptides Involving Silica and Hydroxy Acid-Mediated Amide Bond Formation](#)
Cover Article: [ChemBioChem](#)
Designed/ran cycling experiments, analyzed MS/MS spectra, wrote first manuscript.
16. Wang, D.; Wagner, M.; **Saydjari, A. K.**; Wu, S.; Butt, H.
2017, *Chem. Eur. J.*, 23, 2628-2634. Undergrad
[A Photoresponsive Orthogonal Supramolecular Complex Based on Host–Guest Interactions](#)
Lead quantum chemical simulations determining molecular geometry key to HG interaction.

Publications as a Contributing Author:

17. Stone-Martinez, A. [6 additional co-authors including **Saydjari, A. K.**]
2025, arXiv:2503.03138 (submitted AJ) Postdoc
[StarFlow: Leveraging Normalizing Flows for Stellar Age Estimation in SDSS-V DR19](#)

18. Speagle, J. S. & Zucker, C. [17 additional co-authors including **Saydjari, A. K.**]
 2025, arXiv:2503.02227 (submitted ApJ) Grad
[Deriving Stellar Properties, Distances, and Reddenings from Photometry and Astrometry with BRUTUS](#)
 Provided feedback during method development, and on publication/code-base.
19. Zhou, R. [56 additional co-authors including **Saydjari, A. K.**]
 2024, arXiv:2409.05140 (submitted OJA) Postdoc
[Stellar reddening map from DESI imaging and spectroscopy](#)
 Aided in map validation, data-release, reddening methods, and provided internal DESI review.
20. Speagle, J. S. & Zucker, C. [17 additional co-authors including **Saydjari, A. K.**]
 2024, ApJ, 2, 121. Grad
[Mapping the Milky Way in 5-D with 170 Million Stars](#)
 Provided feedback during method development, and on publication/code-base.
21. Edenhofer, G. [7 additional co-authors including **Saydjari, A. K.**]
 2023, A&A, 685, A82. Grad
[A Parsec-Scale Galactic 3D Dust Map out to 1.25 kpc from the Sun](#)
 Aided in map validation, data-release, securing compute, and consulted on methods development.
22. Zasowski, G. [152 additional co-authors including **Saydjari, A. K.**]
 2023, ApJS, 267, 44. Grad
[The Eighteenth Data Release of the Sloan Digital Sky Surveys: Targeting and First Spectra from SDSS-V](#)
 Key APOGEE pipeline team member and led dust group DIB catalog and reddening efforts.
23. Cantat-Gaudin, T. et al. [13 additional co-authors including **Saydjari, A. K.**]
 2023, A&A, 669, A55. Grad
[An empirical model of the Gaia DR3 selection function](#)
 Created DECaPS2 (and high-resolution coverage maps) that were the underlying comparison used in deriving the empirical selection function.

Non-Refereed

Publications as a Contributing Author:

24. Sayres, C. et al. [12 additional co-authors including **Saydjari, A. K.**]
 2022, Proceedings of the SPIE, 12184 Grad
[SDSS-V robotic focal plane system: overview of coordinate systems and transforms](#)
 Developed regularized fits to improve focal plane coordinate transform.

White Papers with Significant Contributions:

25. Han, J.J. et al. [208 additional co-authors including **Saydjari, A. K.**]
 2023, arXiv:2306.11784. Grad
[NANCY: Next-generation All-sky Near-infrared Community survey](#)
 Lead (wrote) the dust/reddening applications section.
26. Paladini, R. et al. [69 additional co-authors including **Saydjari, A. K.**]
 2023, arXiv:2307.07642. Grad
[Roman Early-Definition Astrophysics Survey Opportunity: Galactic Roman Infrared Plane Survey \(GRIPS\)](#)
 (Co)-Developed crowded field photometry codes necessary for successful photometry in the plane.