

Kathryne J. Daniel

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EDUCATION

Johns Hopkins University, Baltimore, MD

Ph.D. in Physics & Astronomy 2015

Advisor: Rosemary F. G. Wyse

M.A. in Physics & Astronomy 2005

Advisor: Karl Glazebrook

Bryn Mawr College, Bryn Mawr, PA

Post-baccalaureate Major in Physics 2002

A.B. in Classical & Near Eastern Archaeology (Honors) 1999

APPOINTMENTS

University of Arizona, Tucson, AZ

Associate Professor, Department of Astronomy 2022-

Associate Astronomer, Steward Observatory 2022-

Cosmic Explorer

Deputy Director 2022-

Director of Land & Community Partnerships 2022-

Flatiron Institute, New York, NY

Sabbatical Visitor, Center for Computational Astrophysics 2022-2023

Bryn Mawr College, Bryn Mawr, PA

Associate Professor, Department of Physics 2022

Director of Graduate Studies in Physics 2021-2022

Assistant Professor, Department of Physics 2016-2022

Johns Hopkins University, Baltimore, MD

Visiting Research Scientist, Department of Physics & Astronomy 2015-2016

Swarthmore College, Swarthmore, PA

Visiting Assistant Professor, Department of Physics & Astronomy 2015-2016

Towson University, Towson, MD

Lecturer, Department of Physics, Astronomy & Geosciences 2008-2009

Adjunct Faculty, Department of Physics, Astronomy & Geosciences 2006-2008

STATISTICS

ORCID ID: 0000-0003-2594-8052

35[‡] publications, 25[‡] peer reviewed (13 lead author)

79 presentations, 56 invited talks

Currently awarded over \$7.5M total in grants; over \$3.2M to Daniel

2 prize postdocs; 3 PhD students (+8 external); 19 undergraduate theses (6 honors)

[‡] includes articles under review

HONORS & AWARDS

Research Leadership Institute Fellow, U Arizona	2023-2024
Inaugural Vera Rubin Distinguished Visiting Professor, UCSC	2021
Scialog Fellow - Research Corporation & Heising-Simons Foundation	2019
FAMOUS Award	2016, 2018
AAUW American Dissertation Fellowship	2014-2015
E. J. Rhee Award	2014
NSF Graduate Research Fellow	2011-2014
Rowland Prize for Innovation and Excellence in Teaching	2003
Bryn Mawr College Scholarship	1996-1999

RESEARCH TOPICS

Galactic dynamics & evolution – Nature of spiral structure – Dynamical resonances – Radial migration/mixing of disk stars – Kinematic Structure – Chrono-Chemo-Dynamics – Dynamical chaos & stochasticity – Morphology – Globular cluster dynamics – Modeling – Stellar populations – YSO X-ray emission

CURRENT GRANTS

PI: Heising-Simons Foundation #2023-4894 <i>‘Society of Indigenous Physicists: Organizational Development’</i> \$77,050	11/2023-05/2025
PI: NSF LIGO Research Support #2308986 <i>‘Collaborative Research: Identifying and Evaluating Sites for Cosmic Explorer’</i> \$4,464,080 (\$1,956,992 to Daniel)	07/2023-06/2026
PI: Heising-Simons Foundation #2023-4107 <i>‘Inaugural Gathering of the Society of Indigenous Physicists’</i> \$167,538	01/2024-12/2025
PI: Heising-Simons Foundation #2022-3927 <i>‘Unsolved Problems in Astrophysics: A network to revolutionize our understanding of the Universe through inclusive workplaces and equitable practices’</i> \$1,735,757 (\$393,060 to Daniel; \$160,000 for admin & travel; remainder distributed between four additional PIs)	09/2022-09/2025
PI: NASA Astrophysics Data Analysis (ADAP) #21-ADAP21-0134 <i>‘Wrinkles in Time: Linking Stellar Ages to Kinematic Ridges’</i> \$525,745 (\$302,990 to Daniel)	01/2022-10/2025
co-PI: NSF Astronomy & Astrophysics Research (AAG) #2109234 <i>‘Simulating the Lifecycle of Star Clusters: From birth to death in a cosmological galactic context’</i> \$522,357 (\$148,528 to Daniel)	09/2021-08/2025

PROFESSIONAL ACTIVITIES

Workshops

Annual Meetings of the “Unsolved Problems in Astrophysics: A Network to Revolutionize Our Understanding of the Universe Through Inclusive Workplaces and Equitable Practices” - SOC	2023–
XMC Workshop: Milky Clouds over Manhatta <i>Flatiron Institute, CCA, New York, NY, USA.</i> – SOC	2024
Conference for Undergraduate Women in Physics (CUWiP) <i>Biosphere2, Tucson, AZ, USA.</i> – LOC	2024
Wide-Field Spectroscopy vs Galaxy Formation Theory <i>Biosphere2, Tucson, AZ, USA.</i> – SOC	2023
Galactic Archaeology with Fundamental Stellar Parameters: Synthesizing the power of accurate ages with distances, chemistry and kinematics, <i>Aspen Center for Physics (ACP).</i> – Lead Organizer	2021
Several workshops and panels on inclusive practices at national conferences such as the annual AAS, SACNAS, and NSBP meetings	2017 – 2020
CSMA Workshops at AAS Meetings: “Indigenous Knowledge in the 21 st Century” & “Everyday Anti-Racism: Tools to Combat Racism in Astronomy”	2018
Dynamics of the Milky Way in the Era of Gaia Summer Workshop, <i>ACP</i> . Discussion leader and organizer for two sessions. -Equilibrium versus non-equilibrium models for the MW -Radial mixing, radial heating & cold torquing in the disk	2018
Kavli International Summer Institute for Modeling in Astrophysics: Gravitational Dynamics, <i>CITA at University of Toronto, Toronto, Canada</i>	2014
Galactic Dynamics in the Times of Gaia, <i>UNAM, Mexico City, Mexico</i>	2013
GREAT ITN School: Galaxy Modeling, <i>Institut UTINAM, Besançon, France</i>	2012
Summer School for Astro-Computing: Galaxy Simulations, <i>High Performance Astro-Computing Center at UC-Santa Cruz, Santa Cruz CA, USA</i>	2010

Professional Service

Aspen Center for Physics (ACP) – <i>General Board Member</i>	2023-2028
Astronomical Society of the Pacific (ASP) – <i>Board Member</i>	2024-2026
NASA Astrophysics Data Analysis Program (ADAP) – <i>Chair</i>	2024
National Academy of Sciences (NAS) Decadal survey on Astronomy & Astrophysics (Astro2020) : State of the Profession & Societal Impacts – <i>Panelist (nominated)</i>	2019-2021
Cosmic Explorer Advisory Committee – <i>Referee (invited)</i>	2021
AAS Division for Dynamical Astronomy (DDA) – <i>Committee (elected)</i>	2018-2020
NASA Hubble Fellowship Program (NHFP) – <i>Reviewer</i>	2020-2021
Committee on Status of Minorities in Astronomy (CSMA) (<i>nominated & elected</i>); Sub-committee: Indigenous Knowing & Scientific Perspectives	2017-2020
NASA Astrophysics Theory Program (ATP) – <i>Panel Reviewer</i>	2019

Professional Service (cont.)

Gemini Observatory Fast Turnaround – <i>Reviewer</i>	2019-2020
Journal Referee – Nature, Monthly Notices of the Royal Astronomical Society (MNRAS), Astrophysical Journal (ApJ)	
Alfred P. Sloan Foundation - Sloan Digital Sky Survey (SDSS) – <i>Reviewer</i>	2018
Honors in Astronomy at Swarthmore College on ISM – <i>Examiner</i>	2017
Chambliss Astronomy Achievement Student Award – <i>Judge</i>	2016-2018

Professional Societies

[Society of Indigenous Physicists](#) (SIP) - *Co-Founder & Co-Director*
American Astronomical Society (AAS)
American Physical Society (APS)
Society for Advancing Chicanos/Hispanics & Native Americans in Science (SACNAS)

Public Engagement

Morrison Planetarium, California Academy of Sciences ‘Spark: The Universe in Us’ – <i>Science Advisor</i>	2022-2023
Supreme Court of the United States (SCOTUS), Amicus Brief in support of active measures to ensure diversity in admissions and faculty hiring, Students for Fair Admission, Inc vs President and Fellows of Harvard College (No. 20-1199) & Students for Fair Admission, Inc vs University of North Carolina et al. (21-707) – <i>Amicus Curiae (invited)</i>	2022-2023
Model Woman Scientist Speaker at <i>Physics Wonder Girls Camp</i> , U Sciences	2017
PA Young Women in Physics Conference (PA WiP), <i>Keynote Speaker</i> , Bucknell	2017
<i>McNulty Scholars Program</i> (SJU)	2017

STUDENT RESEARCH SUPERVISION & RECOGNITION

Postdoctoral Advisor, *University of Arizona*

[Nicolas Garavito-Camargo](#), Spring ‘25-Fall ‘25 – accepted: **Hubble Fellowship**
Barbara Pichardo Future Faculty Fellow
Warren Bristol, Spring ‘25-Summer ‘26
[Leandro Beraldo e Silva](#), Fall ‘23-Spring ‘25 – Now: **Faculty**, Observatório Nacional, Brazil
Inaugural Barbara Pichardo Future Faculty Fellow

Graduate Advisor, *University of Arizona*

[Sóley Hyman](#) – Fall ‘22-present
PhD Thesis: *PECCARy: Chaos and noise in simulations of dynamical systems*
[Amy Smock](#) – Fall ‘22-present
PhD Thesis: *Wrinkles in Time: Characterizing and constraining spiral history in the Milky Way using Gaia kinematics*

Graduate Advisor, *Bryn Mawr College*

Amy Smock – Spring ‘18-Fall ‘22
[Dr. Olivia McAuley](#) – MA ‘23, PhD ‘24 in Physics
PhD Thesis: *A Migrating Cluster: Stable orbits in NGC 6791 supported by the L4/5 of a slowing Galactic bar*

External Graduate Mentorship

[Himansh Rathore](#) – PhD in Astronomy ‘27 (expected), *U Arizona*

PhD Advisor: Gurtina Besla

Jamie Quinn – PhD in Physics ‘27 (expected), *UC Merced*

PhD Advisor: Sarah Loebman

Rayna Rampalli – PhD in Physics & Astronomy ‘26 (expected), *Dartmouth College*

PhD Advisor: Elisabeth Newton

[Rachel McClure](#) – PhD in Astronomy ‘25 (expected), *University of Wisconsin, Madison*

PhD Advisor: Elena D’Onghia

Dr. Warren Bristol – PhD ‘25 *U Arizona, Geography*

PhD Advisor: Chris Lukenbeal

Project: *Characterizing the science and social suitability of locations for a future Cosmic Explorer observatory using GIS*

[Dr. Carrie Filion](#) – PhD in Physics & Astronomy ‘24, *Johns Hopkins University*

PhD Advisor: Rosemary F. G. Wyse

Dr. Tigran Khachaturyants – PhD in Astronomy ‘22, *University of Central Lancashire*

PhD Advisor: Victor P. Debattista

Dr. Moiya McTier – PhD in Astronomy ‘21, *Columbia University*

PhD Advisor: Kathryn V. Johnston

Undergraduate Research & Theses, *University of Arizona*

Shambhavi Srivastava ‘25

Undergraduate Research & Theses, *Bryn Mawr College*

Ellie Hughes ‘23 (**Honors**) – Now: PhD candidate at **MIT**

Julia Moylan ‘23

Emmy Wisz ‘23 (**Honors**) – Now: PhD candidate at **UC-Merced**

Genevieve Love ‘22 (**Honors**)

Morgan Fernandez ‘21

Irene Lin ‘20 (**Honors**) – Now: PhD candidate at **Columbia U**

Fiona McCluskey ‘19 (**Honors**); Leroy Apker Award – Now: PhD candidate at **UC-Davis**

Dr. Carrie Filion ‘18 (**Honors**) – PhD ‘24, **Johns Hopkins U**, Now: **CCA Fellow**

Chelsea Thangavelu ‘18 (**Honors**) – Now: Aero Core MS Aerospace Eng., **CU-Boulder**

Codie Fiedler-Kawaguchi ‘18 – Now: **Los Alamos National Labs**

Cheryl Liu ‘18 (**Honors**); Kathrine B Blodgett 1917 Summer Research Fellowship; – Now: PhD candidate at **U of Washington**

Jessica Breet ‘18

Dr. Bridgett Kohno ‘17 – PhD ‘21, **UC-Irvine**

Han Wang ‘17

Sarah Brown ‘17

Undergraduate Research & Theses, *Swarthmore College*

Noah Lifset ‘18

Luke Barbano ‘18

2025	Colloquium	Massachusetts Institute of Technology (MIT), Boston MA
	Seminar	Canadian Institute for Theoretical Astrophysics (CITA), Toronto ON, Canada
	Colloquium	Carnegie Observatories, Pasadena CA
	Plenary	Canadian Association of Physicists (CAP) 2025 Congress, Saskatoon SN, Canada
	Colloquium	University of Florida, Gainesville FL
2024	Colloquium	NASA Goddard Space Flight Center, Greenbelt MD
	Colloquium	Los Alamos National Laboratory, Los Alamos NM
	Colloquium	University of New Mexico, Albuquerque NM
	Colloquium	University of Maryland, College Park MD
	Seminar	SLAC National Accelerator Laboratory, Stanford University, CA
2023	Plenary	AAS 242 nd Meeting, Albuquerque NM
	Keynote	15 th Edoardo Amaldi Conference on Gravitational Waves, Virtual
2022	Colloquium	UT Austin, Astronomy Dept, Austin TX
	Colloquium	CCA, Flatiron Institute, New York NY
	Colloquium	Yale University New Haven CT
	Colloquium	Dartmouth College Hanover NH
	& Seminar	
	Seminar	Milky Way As a Galaxy II Symposium, SDSS-IV, Virtual
	Seminar	University of Central Lancashire Preston UK
2021	Colloquium	UC Santa Cruz, Astronomy Dept, Santa Cruz CA
	Colloquium	University of Wisconsin - Madison Madison WI
	Colloquium	Steward Observatory & University of Arizona Tucson AZ
2020	Colloquium	Wesleyan University Middletown CT
	Colloquium	Michigan State University East Lansing MI
	Colloquium	Royal Observatory, Edinburgh University, Edinburgh, Scotland, UK
	Seminar	University of Surrey Guildford, England, UK
	Seminar	CfA - Harvard & Smithsonian, ITC, Cambridge MA
	Colloquium	University of Michigan Ann Arbor MI
2019	Seminar	Flatiron Institute, CCA, New York NY
	Seminar & Lecture	UC Davis Davis CA
2018	Seminar	Columbia University New York NY
	Seminar	American Museum of Natural History, New York NY
	Talk	<i>Galactic Rings: Signposts of Secular Evolution in Disk Galaxies</i> , Tuscaloosa AL
	Colloquium	Haverford College Haverford PA
2017	Seminar	Harvard-Smithsonian CfA, Cambridge MA
	Talk	<i>Thin, Thick and Dark Disks</i> by the Center for Theoretical Astrophysics & Cosmology, University of Zurich, Ascona, Switzerland

Select Invited Talks: (cont.)

Keynote *Banneker & Aztlán Institute*, Harvard-CfA, Cambridge, MA

PUBLICATIONS (student, *mentee)

Peer Reviewed Journal Articles:

Quinn*, J. R., Loebman, S., **Daniel, K. J.**, Beraldo e Silva*, L., Wetzel, A., Debatista, V., Arora, A., McClusky, F., Masoumi, D. & Bailin, J. (2025) "Spiral Structure Properties, Dynamics, and Evolution in MW-mass Galaxy Simulations" ApJ, submitted (DOI:[10.48550/arXiv.2507.22793](https://doi.org/10.48550/arXiv.2507.22793))

Lam, C., Ballard, S., Sagear, S., & **Daniel, K. J.** (2025) "A Late-Time Rise in Planet Occurrence Reproduces the Galactic Height Trend in Planet Occurrence" AJ, submitted (DOI:[10.48550/arXiv.2507.21250](https://doi.org/10.48550/arXiv.2507.21250))

McClure, R.*, Géron, T., D'Onghia, E., Beane, A., Thusoo, A., **Daniel, K. J.**, Filion, C.* & Lucchini, S. (2025) "The Secular Attrition of Classical Bulges by Evolving Stellar Bars" ApJ, submitted (DOI:[10.48550/arXiv.2506.09150](https://doi.org/10.48550/arXiv.2506.09150))

Smock*, A., Rampalli, R., **Daniel, K. J.**, Newton, E., McAuley*, O. & Hyman*, S. (2025) "Wrinkles in Time – II: Analysis of Stellar Age Trends in Orbital Space Signatures from Simulations of Transient Spiral Structure" ApJ, submitted

Beraldo e Silva*, L., Valluri, M., Vasiliev, E., Hattori, K., de Siqueira Pedra, W. & **Daniel, K. J.** (2025) "Minimum-entropy constraints on galactic potentials" ApJ, accepted (DOI:[10.48550/arXiv.2407.07947](https://doi.org/10.48550/arXiv.2407.07947))

Filion, C.*, Petersen, M. S., Horta, D., **Daniel, K. J.**, Lucey, M. & Price-Whelan, A. M. (2025) "Counterculture Stars: Slow and Retrograde Stars with Low-Alpha Disk Abundances" ApJ, accepted (DOI:[arXiv:2506.09927](https://doi.org/10.48550/arXiv.2506.09927))

Hyman*, S. O., **Daniel, K. J.** & Schaffner, D. (2025) "PECCARY: A novel approach for characterizing orbital complexity, stochasticity, and regularity" ApJ, 987, 195 (DOI:[10.3847/1538-4357/adda3e](https://doi.org/10.3847/1538-4357/adda3e))

Arora, A., Garavito-Comargo*, N., Sanderson, R., Weinberg, M. D., Petersen, M. S., Varela-Lavin, S., Gómez, F. A., Johnston, K. V., Laporte, C. F. P., Shipp, N., Hunt, J. A. S., Besla, G., Darragh-Ford, E., Panithanpaisal, N. & **Daniel, K. J.** (2025) "Shaping the Milky Way: The interplay of mergers and cosmic filaments" ApJ, 988, 190 (DOI:[10.3847/1538-4357/ade30d](https://doi.org/10.3847/1538-4357/ade30d))

Rathore*, H., Besla, G., **Daniel, K. J.** & Beraldo e Silva*, L. (2025) "Response of the LMC's Bar to a Recent SMC Collision and Implications for the SMC's Total Mass Profile" ApJ, 988, 79 (DOI: [10.3847/1538-4357/ade0ae](https://doi.org/10.3847/1538-4357/ade0ae))

Wisz*, E., Masters, K., **Daniel, K. J.**, Stark, D.V. & Belfiore, F. (2025) "The Impact of Bars, Spirals and Bulge-Size on Gas-Phase Metallicity Gradients in MaNGA Galaxies" ApJ, 983, 57 (DOI:[10.3847/1538-4357/adbb6f](https://doi.org/10.3847/1538-4357/adbb6f))

Peer Reviewed Journal Articles: (cont.)

McClure*, R., Beane, A., d’Onghia, E., Filion*, C. & **Daniel, K. J.** (2025) “The Impact of Classical Bulges on Stellar Bars and Box-Peanut-X-Features in Disk Galaxies" MNRAS, 537, 2, 1475 (DOI: [10.1093/mnras/staf107](https://doi.org/10.1093/mnras/staf107))

Daniel, K. J., Smith, J.R., Ballmer, S., Bristol*, W., Driggers, J.C., Effler, A., Evans, M., Hoover, J., Kuns, K., Landry, M., Lovelace, G., Lukinbeal, C., Mandic, V., Pham, K., Read, J., Russell, J.B., Schiettekatte, F., Schofield, R.M.S., Scholz, C.A., Shoemaker, D.H., Sledge, P., & Strunk, A. (2025) “Criteria for identifying and evaluating locations that could potentially host the Cosmic Explorer observatories" RevSI, 96, 014502 (DOI: [10.1063/5.0242016](https://doi.org/10.1063/5.0242016))

Tahmasebzadeh, B., Dattathri, S., Valluri, M., Shen, J., Zhu, L., Wheeler, V., Gerhard, O., Kumar Kataria, S., Beraldo e Silva*, L., & **Daniel, K. J.** (2024) “Orbital Support and Evolution of CX/OX Structures in Boxy/Peanut Bars" ApJ, 975, 120 (DOI: [10.3847/1538-4357/ad77c8](https://doi.org/10.3847/1538-4357/ad77c8))

Beraldo e Silva, L., Debattista, V., Anderson, S. R., Valluri, M., Erwin, P., **Daniel, K. J.** & Deg, N. (2023) “Orbital support and evolution of flat profiles of bars (shoulders)" ApJ, 955, 38 (DOI: [10.3847/1538-4357/ace976](https://doi.org/10.3847/1538-4357/ace976))

Rampalli*, R., Smock*, A., Newton, E., **Daniel, K. J.** & Curtis, J. L. (2023) “Wrinkles in Time – I: Rapid Rotators Found in High Eccentricity Orbits" ApJ, 958, 76 (DOI: [10.3847/1538-4357/acff69](https://doi.org/10.3847/1538-4357/acff69))

Filion*, C., McClure, R. L., Weinberg, M. D., D’Onghia, E. & **Daniel, K. J.** (2023) “The Non-Axisymmetric Influence: Radius and Angle-Dependent Trends in a Barred Galaxy" MNRAS, 524, 276 (DOI: [10.1093/mnras/stad1832](https://doi.org/10.1093/mnras/stad1832))

Khachaturyants, T., Debattista, V., Ghosh, S., Beraldo e Silva, L. & **Daniel, K. J.** (2022) “The pattern speeds of vertical breathing waves" MNRAS Letter, 517, 55 (DOI: [10.1093/mnras/slac112](https://doi.org/10.1093/mnras/slac112))

Khachaturyants, T., Beraldo e Silva, L., Debattista, V. & **Daniel, K. J.** (2022) “Bending waves excited by irregular gas inflow along warps" MNRAS, 512, 3500 (DOI: [10.1093/mnras/stac606](https://doi.org/10.1093/mnras/stac606))

Daniel, K. J., Schaffner, D., McCluskey*, F., Fiedler Kawaguchi*, C., Loebman, S. (2019) “When Cold Radial Migration is Hot: Constraints from Resonant Overlap" ApJ, 882, 111 (DOI: [10.3847/1538-4357/ab341a](https://doi.org/10.3847/1538-4357/ab341a))

Daniel, K. J. & Wyse, Rosemary F. G. (2018) “Constraints on Radial Migration in Spiral Galaxies - II. Angular momentum distribution and preferential migration" MNRAS, 476, 1561 (DOI: [10.1093/mnras/sty199](https://doi.org/10.1093/mnras/sty199))

Daniel, K. J., Heggie, D. C., & Varri, A. L. (2017) “An Approximate Analytic Model of a Star Cluster with Potential Escapers", MNRAS, 468, 1453 (DOI: [10.1093/mnras/stx571](https://doi.org/10.1093/mnras/stx571))

Daniel, K. J. & Wyse, Rosemary F. G. (2015) “Constraints on Radial Migration in Spiral Galaxies - I. Analytic Criterion for Capture at Corotation" MNRAS, 447, 3576 (DOI: [10.1093/mnras/stu2683](https://doi.org/10.1093/mnras/stu2683))

Peer Reviewed Journal Articles: (cont.)

Le Bourgne, D., Roberto, A., **Daniel, K. J.** et al. (2006) "Gemini Deep Deep Survey. VI. Massive H δ -strong Galaxies at $z=1$ " ApJ, 642, 48 (DOI: [10.1086/500005](https://doi.org/10.1086/500005))

Gagné, M., **Daniel, K. J.**, & Skinner, S. L. (2004) "Simultaneous *Chandra* and Very Large Array Observation of Young Stars and Protostars in ρ -Ophiuchus Cloud Core A", ApJ, 613, 393 (DOI: [10.1086/422828](https://doi.org/10.1086/422828))

Daniel, K. J., Linsky, J. L., & Gagné, M. (2002) "*Chandra* Observations of the Pleiades Open Cluster: X-Ray Emission from Late B- to Early F-Type Binaries", ApJ, 578, 486 (DOI: [10.1086/340553](https://doi.org/10.1086/340553))

Other Publications:

"How relational learning can disrupt the scientific cultural status quo: lessons from astronomy" (2023) in [*Teaching Environmental Justice: Practices to Engage Students and Build Community*](#), by **Daniel, K.J.** & Ramirez-Ruiz, E., Ed. Jinnah, S., Dubreuil, J., Greene, J., & Foster, S.S., Edward Elgar Publishing (ISBN: 978 1 78990 505 2)

"Characterizing Gravitational Wave Detector Networks: From A[#] to Cosmic Explorer" (2023), *NSF Next-Generation Gravitational Wave Subcommittee White Paper* by Gupta, I., Afle, C., Arun, K.G., Bandopadhyay, A., Biscobeanu, S., Borhanian, S., Corsi, A., Dhani, A., Evans, M., Hall, E.D., Hannuksela, O.A., Kacanja, K., Kashyap, R., Khadkikar, S., Kuns, K., Li, T.G.F., Miller, A.L., Nitz, A.H., Owen, B.J., Palomba, C., Pearce, A., Phurailatpam, H., Rajbhandari, B., Ramano, J.D., Sathyaprakash, B., Singh, D., Shoemaker, D.H., Vitale, S., Ananyeva, ., Ballmer, S., Barsotti, L., Baryakhtar, M., Berger, E., Berti, E., Broesgaarden, F., Brown, D., Cahillane, C., Campbell, L., Chen, H.-Y., **Daniel, K.J.**, Driggers, J.C., Effler, A., Eisenstein, R., Fairhurst, S., Feicht, J., Fritschel, P., Fulda, P., Hammond, G., Hansen, H., Haster, C., Kamai, B., Key, J., Kontos, A., Landry, M., Landry, P., Lantz, B., Lovelace, G., Mandic, V., Mansell, G.L., Martynov, D., McCuller, L., Read, J., Reddy, S., Richardson, J., Rollins, J., Schofield, R., Sigg, D., Slagmolen, B., Sledge, P., Smith, J., Soares-Santos, M., Strunk, A., Sun, L., Tanner, D., van Son, L.A.C., Willke, B., Yamamoto, H., & Zucker, M.

"Cosmic Explorer: A Submission to the NSF MPSAC ngGW Subcommittee" (2023), *NSF Next-Generation Gravitational Wave Subcommittee White Paper* by Evans, M., Corsi, A., Arle, C., Ananyeva, ., Arun, K.G., Ballmer, S., Bandopadhyay, A., Barsotti, L., Baryakhtar, M., Berger, E., Berti, E., Biscobeanu, S., Borhanian, S., Broesgaarden, F., Brown, D., Cahillane, C., Campbell, L., Chen, H.-Y., **Daniel, K.J.**, Dhani, A., Driggers, J.C., Effler, A., Eisenstein, R., Fairhurst, S., Feicht, J., Fritschel, P., Fulda, P., Gupta, I., Hall, E.D., Hammond, G., Hannuksela, O.A., Hansen, H., Haster, C., Kacanja, K., Kamai, B., Kashyap, R., Key, J., Khadkikar, S., Kontos, A., Kuns, K., Landry, M., Landry, P., Lantz, B., Li, G.F.T., Lovelace, G., Mandic, V., Mansell, G.L., Martynov, D., McCuller, L., Miller, A.L., Nitz, A.H., Owen, B.J., Palomba, C., Read, J., Phurailatpam, H., Reddy, S., Richardson, J., Rollins, J., Ramano, J.D., Sathyaprakash, B., Schofield, R., Shoemaker, D.H., Sigg, D., Singh, D., Slagmolen, B., Sledge, P., Smith, J., Soares-Santos, M., Strunk, A., Sun, L., Tanner, D., van Son, L.A.C., Vitale, S., Willke, B., Yamamoto, H., & Zucker, M. (DOI: [10.48550/arXiv.2306.13745](https://doi.org/10.48550/arXiv.2306.13745))

Other Publications: (cont.)

"Amicus Brief" for the *Supreme Court of the United States*, Students for Fair Admission, Inc. vs President and Fellows of Harvard College & Students for Fair Admission, Inc. vs University of North Carolina et al., in support of ensuring diversity in admissions and faculty hiring (2022), Nos. 20-1199 & 21-707, by Hogewood, A.L. III, Corrales, L.R., Tan, J.P., Harlow, D., White, G., Stassun, K., **Daniel, K.J.**, Lopez, L.A., Agueros, M., Norman, D., Ivie, R., Valentine Miller, J., Pando, J.

"Cosmic Explorer, the Next Exploration Step" (2022), in *Matters of Gravity: The Newsletter* of the Division of Gravitational Physics of the APS, by Srivastava, V., **Daniel, K.J.**, Ballmer, S., N.55, 4, Ed. Zimmerman, A., arXiv:2204.00544

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[†]Alias

COURSES TAUGHT

University of Arizona, Tucson, AZ

ASTR 300A - *Dynamics in Astronomy & Astrophysics*

Bryn Mawr College, Bryn Mawr, PA

PHYS 101 Lab - *Introductory Physics I - Mechanics* (remote design)

PHYS 102 - *Introductory Physics II - E&M*

PHYS 102-1 - *Introductory Physics II - E&M (postbac pre-med)*

PHYS 121 - *Modern Physics*

PHYS 122 - *Introduction to Classical Mechanics*

PHYS 214 - *Introductory Quantum Mechanics*

PHYS 214 Lab - *Programming in Python*

PHYS 303 - *Statistical Mechanics & Thermodynamics*

PHYS 308 - *Advanced Classical Mechanics*

PHYS 328 - *Galactic Dynamics*

PHYS 403 - *Undergraduate Supervised Research*

PHYS 505 - *Graduate Classical Mechanics*

Swarthmore College, Swarthmore, PA

ASTR 1 - *Introductory Astronomy*

ASTR 2 - *Tracing the Unseen Universe*

ASTR 16 Lab - *Modern Astrophysics: Observational*

PHYS 82 - *Advanced Lab II*

PHYS 94 - *Senior Comprehensive*

Towson University, Towson, MD

ASTR 161 - *Introductory Astronomy I*

ASTR 161 Lab - *Introductory Astronomy I: Lab*

ASTR 162 - *Introductory Astronomy II*

ASTR 162 Lab - *Introductory Astronomy II: Lab*

PHYS 100 - *Understanding Physics*

PHYS 211 - *General Physics I: Algebra/Trig Based*

PHYS 241 - *General Physics I: Calculus Based*

PHSC 101 - *Physical Science*

Johns Hopkins University, Baltimore, MD

PHYS 171.101 (Recitation & Lab) - *General Physics I (Sci Majors)*

PHYS 171.102 (Recitation & Lab) - *General Physics II (Sci Majors)*

PHYS 171.103 (Head TA) - *General Physics I (Bio Majors)*

PHYS 171.104 (Head TA) - *General Physics II (Bio Majors)*

INSTITUTIONAL SERVICE

UA Committees

Steward Observatory /Department of Astronomy Advisory Committee	2023-2026
Graduate Admissions Committee	2023-2025
Bok Prize Fellowship Committee	2025
Undergraduate Scholarships Committee	2024-2025
Steward Observatory Prize Fellowship in Theoretical and Computational Astrophysics Selection Committee	2023-2024

BMC Committees

Graduate Council	2021-2022
Ad Hoc Committee to form an Anti-Racism Committee (ARC)	2021
Honor Board	2017-2020
Hiring Committee, Physics	2017, 2019, 2021
HC Hiring Committee, Astronomy – <i>Advisor</i>	2016

Other BMC College Service

Director of Graduate Studies in Physics	2021-2022
Race Matters Institute Workshops – <i>Advisory Committee</i>	2018-2019
Alumnae Association Travel Program: Authentic Iceland – <i>Lecturer/Host</i>	2018
Physics Department Events – <i>Coordinator</i>	2017-2021
Society of Physics Students (SPS-BMC) - <i>Faculty Advisor</i>	2017-2022
BMC Star ParTeas – <i>Organizer & Host</i>	2017-2022
Student Booth at Philadelphia Science Festival Carnival– <i>Organizer</i>	2017
SAndAWiCh – <i>Organizer & Host</i>	2015-2019
A quarterly Tri-college seminar for astrophysically oriented faculty.	