

ROCIO KIMAN

Citizenship: Argentina and Spanish
Email: rociokiman@gmail.com
Phone: +1 (908) 737-2957
Website: rkiman.github.io
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California Institute of Technology
1200 E California Blvd
Pasadena, California 91125

Appointments	Sherman Fairchild Postdoctoral Scholar	
	Research Associate in Astronomy	September 2022–Present
	California Institute of Technology Pasadena, California, USA.	
	Volunteer for Astronomy Outreach	July 2022
	Santa Barbara Museum of Natural History Santa Barbara, California, USA.	
	Postdoctoral Scholar	September 2021–August 2022
	Kavli Institute for Theoretical Physics University of California, Santa Barbara Santa Barbara, California, USA.	
Education	The Graduate Center, City University of New York	2016–2021
	Ph.D. in Physics Master of Philosophy Physics (June 2, 2020) Thesis Title: “A Unified Approach to M Dwarf Ages” Thesis Advisors: Prof. Kelle Cruz & Dr. Jackie Faherty New York, New York, USA.	
	Universidad de Buenos Aires	2011–2016
	Licenciatura in Physics Thesis Title: “Higgs boson pair production at the LHC” Thesis Advisor: Prof. Daniel de Florian Buenos Aires, Argentina.	
Grants & Awards	TESS Cycle 5 Guest Investigator Program, for \$70,000	July 19 2022
	PSC-CUNY Cycle 51 Trad B Research Award, (PI: K.Cruz) for \$6000	April 16 2020
	Sigma Xi Grants in Aid of Research, for \$4334	June 01 2019
	Doctoral Student Research Grant (Round 14) for \$875	March 13 2019
	Provosts Pre-Dissertation Research Fellowship for the Sciences, for \$5000	March 08 2019
	K2 Guest Observer Cycle 6 (PI: J. Faherty) for \$125,000	June 25 2018
	PSC-CUNY Cycle 49 Trad B Research Award (PI: K.Cruz) for \$6000.00	April 13 2018
	CUNY Science Scholarship	August 25 2016
	AY 20162017: \$26,000 stipend and full tuition AY 20172018, AY 20182019, AY 20192020 and AY 20202021: full tuition	
	CONICET Doctoral Fellowship, \$5270 stipend	April 01–August 24 2016
Open source code and tutorials	wdwarfdate: Open source code that estimates ages of white dwarfs in a Bayesian framework. [Source] [Docs]	
	Modeling 1: Make a quick fit using astropy.modeling Astropy Python Package tutorial. [Docs]	
	Modeling 2: Create a User Defined Models using astropy.modeling Astropy Python Package tutorial. [Docs]	

Observing Time Awarded	Three nights with the Double Spectrograph (DBSP), Palomar Observatory for the 2022B semester (PI: G. Hallinan).
Invited Talks	<p>Seminar Center for Astronomy, Harvard University, October 18 2022, <i>Studying Radius Inflation on Low-Mass Stars Using Gaia DR3</i>.</p> <p>Seminar at IPAC/Caltech, October 5 2022, <i>A Unified Approach to M Dwarf Ages</i>.</p> <p>Kavli Institute for Theoretical Physics, Probes of Transport in Stars Program, December 9 2021, <i>Through the Fully Convective Boundary: An Overview of Low-mass Stars and Brown Dwarfs</i>.</p> <p>Berkeley online short talk, April 22 2021, <i>Age Relations for Low-Mass Stars</i>.</p> <p>Carnegie Observatories online Lunch Talk, March 19 2021, <i>Age Relations for Low-Mass Stars</i>.</p> <p>Center for Astronomy's Exoplanet Presentation Lounge online, February 23 2021, <i>Age Relations for Low-Mass Stars</i>.</p> <p>Gemini Observatory Seminar, January 10 2020, Hilo, HI, USA. <i>Age-dating low mass stars using magnetic activity and kinematics</i>.</p> <p>Leibniz-Institut für Astrophysik Potsdam (AIP) Seminar, July 2 2019, Potsdam, Germany. <i>Finding Age Relations for Low Mass Stars Using Magnetic Activity and Kinematics</i>.</p> <p>Princeton University Seminar, May 23 2019, NJ, USA. <i>Finding Age Relations for Low Mass Stars Using Magnetic Activity and Kinematics</i>.</p> <p>Invited panelist, AAS 233, 6–10 January, 2019, Seattle, Washington, USA. <i>An Open Discussion on Software</i>.</p>
Selected Contributed Presentations	<p>Fifty Years of the Skumanich Relations, March 08-11 2022, Boulder, Colorado USA, <i>A unified approach to M dwarf ages</i>.</p> <p>University of Washington online Lunch Talk, March 9 2021, <i>Age Relations for Low-Mass Stars</i>.</p> <p>Leiden Observatory online Lunch Talk, February 2 2021, <i>Age Relations for Low-Mass Stars</i>.</p> <p>Dartmouth online Journal club, September 9 2020, <i>Age Relations for Low-Mass Stars</i>.</p> <p>Poster presentation, AAS 235, 4-8 January, 2020, Honolulu, HI, USA. <i>Age-Activity relation for M dwarfs using Hα equivalent widths</i> Kiman R., Faherty J., Cruz K., Xu S., Schmidt S., Angus R., Gagné J., Bardalez Gagliuffi D., Rice E.</p> <p>Contributed talk, TRAPPIST-1 conference, June 11–14, 2019, Liège, Belgium. <i>TRAPPIST-1 in the context of M-dwarfs re-defined by Gaia DR2</i>.</p> <p>Contributed talk, Big Apple Magnetic Fields Conference, January 24–25, 2019, Center for Computational Astrophysics at the Flatiron Institute, NY, New York, USA. <i>Finding age relations for low mass stars using magnetic activity and kinematics</i>.</p> <p>Poster presentation, AAS 233, 6–10 January, 2019, Seattle, Washington, USA. <i>Finding age relations for low mass stars using magnetic activity and kinematics</i>. Kiman, R., Schmidt, S.J., Angus, R., Cruz, K.L., Faherty, J.K. & Rice, E.</p> <p>Poster presentation, Cool Stars, July 30 to August 3, 2018, Boston-Cambridge, USA. <i>Age Dating Low Mass Stars Using Galactic Kinematics</i>. Kiman, R., Schmidt, S.J., Angus, R., Cruz, K.L., Faherty, J.K. & Rice, E.</p> <p>Contributed talk, Cool Stars, July 30 to August 3, 2018, Boston-Cambridge, USA. <i>Age Dating Low Mass Stars Using Galactic Kinematics</i>.</p>
Schools and Selected Conferences Attended	<p><i>LSST program</i> September 8–13 2019, CCA, New York</p> <p><i>Space Astrometry For Astrophysics</i>. 3–7 June 2019, L'Aquila, Italy</p> <p><i>Astronomy X</i>. 24–27 September 2018, Baltimore MD, USA.</p> <p><i>Gaia Sprint</i>. 4–8 to June, 2018, Center for Computational Astrophysics at the Flatiron Institute, NY, New York, USA.</p> <p><i>Python in Astronomy</i>. April 30 to May 4, 2018, Center for Computational Astrophysics at the Flatiron Institute, NY, New York, USA.</p> <p><i>Gaia DR2 Sprint</i>. 25–27 April, 2018, Center for Computational Astrophysics at the Flatiron Institute, NY, New York, USA.</p>

IYAS on the scientific exploration of the Gaia data. February 26 to March 2, 2018, Paris, France.

La Serena School of Data Science. 21-29 August, 2017, La Serena, Chile.

Teaching Experience	ASTRO 10200 - Laboratory Explorations in Astronomy	2019–2020
	Hunter College, CUNY, New York, USA	
	Classical Mechanics, University of Buenos Aires, Argentina	2016
	Private Tutor for High-School and Undergraduate Students	2009–2015
	High-school subjects: Mathematics, Physics, Chemistry and Informatic	
	Undergraduate subjects: Calculus, Algebra, Physics and Chemistry	
Outreach Activities	Participation in the explaining video about JWST with the Santa Barbara Museum of Natural History. July 13 2022. Available online .	
	Planetarium presentations: <i>Explorando el Sistema Solar</i> . Santa Barbara Museum of Natural History, Sundays during July 2022. Santa Barbara, California.	
	Invited talk about the Lunar Eclipse for the Astronomy Girl Scouts Club, at the Santa Barbara Museum of Natural History, May 13 2022. Santa Barbara, California.	
	Invited talk at the Graduate Student Research Symposium, October 23 2020. City College of New York, CUNY.	
	Public talk at <i>Viernes Astronómicos: Cuál es la edad de las estrellas?</i> , September 18 2020. Universidad Nacional Mayor de San Marcos, Lima, Perú. Open public. Available online .	
	Participation in the presentation in Spanish, September 24 2019. <i>Astronomía en Vivo: Historia del Universo</i> . American Museum of Natural History, New York, USA. Open public.	
	Presentation at Adventures in Science Camps, January 29 2019. American Museum of Natural History, New York, USA. For children in Grades 1–5.	
	Outreach Assistant, 2014–2016. Universidad de Buenos Aires, Argentina	
	Presenter at the “Physics week” for high-school students, 2014-2015.	
	Presenter at the “Museum’s night”, 2014-2015.	
Observing experience	Presenter at the Book Fair in Buenos Aires, May 2015.	
	Monthly outreach talks for high-school students about the career in Physics.	
	FIRE at the Magellan Telescope at Las Campanas Observatory	December 10–13 2019
	in Chile. For the Backyard worlds project.	
	SpeX at the NASA Infrared Telescope Facility (NASA IRTF)	August 28 2018
First Author Publications	Telescope at the Mauna Kea Observatory in Hawaii. Remote Observing.	
	CAPSCam at the DuPont Telescope	November 30 2017
	at Carnegie’s Las Campanas Observatory in Chile. Remote Observing.	
Co-author Publications	3. wdwarfdate: A Python Package to Derive Bayesian Ages of White Dwarfs.	
	Kiman, R. , Xu, S., Faherty, J.K., Angus, R., Brandt, T.D., Casewell, S.L., Gagné, J., Cruz, K.L., The Astronomical Journal, 164, 2, 13 (2022) DOI: 10.3847/1538-3881/ac7788	
	2. Calibration of the Hα Age-Activity relation for M dwarfs	
	Kiman, R. ; Faherty, J.K.; Cruz, K.L.; Gagné, J.; Angus, R.; Schmidt, S. J.; Mann, A.W.; Bardalez Gagliuffi, D.C.; Rice, E.; The Astronomical Journal, 161, 6, 22 (2021) DOI: 10.3847/1538-3881/abf561	
	1. Exploring the age dependent properties of M and L dwarfs using Gaia and SDSS.	
	Kiman, R. , Schmidt, S.J., Angus, R., Cruz, K.L., Faherty, J.K. & Rice, E., The Astronomical Journal, 157, 6, 231 (2019) DOI: 10.3847/1538-3881/ab1753	
Co-author Publications	12. Magnetic braking saturates: evidence from the orbital period distribution of low-mass detached eclipsing binaries from ZTF	
	El-Badry, K.; Conroy, C.; Fuller, J.; Kiman, R. ; van Roestel, J.; Rodriguez, A. C.; Burdge, K. B.; Monthly Notices of the Royal Astronomical Society, Advance Access (2022) DOI: 10.1093/mnras/stac2945	

11. [The POKEMON Speckle Survey of Nearby M Dwarfs. I. New Discoveries](#)
Clark, C. A.; van Belle, G. T.; Horch, E. P.; von Braun, K.; Ciardi, D. R.; Winters, J. G.; **Kiman, R.**; The Astronomical Journal, 164, 2, 13 (2022) DOI: 10.3847/1538-3881/ac739c
10. [Discovery of 34 Low-mass Comoving Systems Using NOIRLab Source Catalog DR2](#)
Kiwiy, F.; Faherty, J. K.; Meisner, A.; Schneider, A. C.; Kirkpatrick, J. D.; Kuchner, M. J.; Burgasser, A. J.; Casewell, S.; **Kiman, R.**; Calamari, E.; Aganze, C.; Hsu, C.; Sainio, A.; Thakur, V.; Backyard Worlds: Planet 9 Collaboration; The Astronomical Journal, 164, 1, 24 (2022) DOI: 10.3847/1538-3881/ac68e7
9. [WDJ220838.73+454434.04: a White Dwarf Companion in the AR Lacertae System](#)
Bickle, T. P.; Jalowiczor, P. A.; Casewell, S. L.; Faherty, J. K.; **Kiman, R.**; Schneider, A. C.; Kirkpatrick, J. D.; Meisner, A. M.; Kuchner, M. J.; Caselden, D.; Backyard Worlds: Planet 9 Collaboration; Research Notes of the AAS, 6, 6, 127 (2022). DOI: 10.3847/2515-5172/ac780a
8. [Ross 19B: An Extremely Cold Companion Discovered via the Backyard Worlds: Planet 9 Citizen Science Project](#)
Schneider, A. C.; Meisner, A. M.; Gagne, J.; Faherty, J. K.; Marocco, F.; Burgasser, A. J.; Kirkpatrick, J. D.; Kuchner, M. J.; Gramaize, L.; Rothermich, A.; Brooks, H.; Vrba, F. J.; Bardalez Gagliuffi, D.; Caselden, D.; Cushing, M. C.; Gelino, C. R.; Line, M. R.; Casewell, S. L.; Debes, J. H.; Aganze, C.; Ayala, A.; Gerasimov, R.; Gonzales, E. C.; Hau, C.; **Kiman, R.**; Popinchalk, M.; Theissen, C.; The Backyard Worlds: Planet 9 Collaboration; The Astrophysical Journal, 921, 2, 13 (2021) DOI: 10.3847/1538-4357/ac1c75
7. [Evaluating Rotation Periods of M dwarfs](#)
Popinchalk, M.; Faherty, J.; **Kiman, R.**; Angus, R.; Curtis, J.; Gagne, J.; Cruz, K.; Rice, E.; The Astrophysical Journal, 916, 2, 77 (2021) DOI: 10.3847/1538-4357/ac0444
6. [Gyro-Kinematic Ages for 29,949 Kepler Stars](#)
Lu, Y.; Angus, R.; Curtis, J.L.; David, T.J., **Kiman, R.**; The Astronomical Journal, 161, 4, 189 (2021) DOI: 10.3847/1538-3881/abe4d6
5. [The Field Substellar Mass Function Based on the Full-sky 20-pc Census of 525 L, T, and Y Dwarfs.](#)
Kirkpatrick, J.D.; Gelino, C.R.; Faherty, J.K.; Meisner, A.M.; Caselden, D.; Schneider, A.C.; Marocco, F.; Cayago, A.J.; Smart, R.L.; Eisenhardt, P.R.; Kuchner, M.J.; Wright, E.L.; Cushing, M.C.; Allers, K.N.; Bardalez Gagliuffi, D.C.; Burgasser, A.J.; Gagne, J.; Logsdon, S.E.; Martin, E.C.; Ingalls, J.G.; Lowrance, P.J.; Abrahams, E.S.; Aganze, C.; Gerasimov, R.; Gonzales, E.C.; Hsu, C.; Kamraj, N.; **Kiman, R.**; et al, The Astrophysical Journal Supplement Series, 253, 1, 85 (2021) DOI: 10.3847/1538-4365/abd107
4. [Discovery of a Nearby Young Brown Dwarf Disk](#)
Schutte, M. C.; Lawson, K. D.; Wisniewski, J. P.; Kuchner, M. J.; Silverberg, S. M.; Faherty, J. K.; Bardalez Gagliuffi, D. C.; **Kiman, R.**; Gagn, J.; Meisner, A.; Schneider, A. C.; Bans, A. S.; Debes, J. H.; Kovacevic, N.; Bosch, M. K. D.; Durantini Luca, H. A.; Holden, J.; Hyogo, M., (2020) arXiv:2007.15735
3. [Spitzer Follow-up of Extremely Cold Brown Dwarfs Discovered by the Backyard Worlds: Planet 9 Citizen Science Project.](#)
Meisner, A. M.; Faherty, J.K.; Kirkpatrick, J. D.; Schneider, A.C.; Caselden, D.; Gagn, J.; Kuchner, M.J.; Burgasser, A.J.; Casewell, S.L.; Debes, J.H.; Artigau, .; Bardalez Gagliuffi, D.C.; Logsdon, S.E.; **Kiman, R.** et al., The Astrophysical Journal, Volume 899, Issue 2, id.123 (2020) DOI:10.3847/1538-4357/aba633
2. [Exploring the evolution of stellar rotation using Galactic kinematics](#)
Angus, R.; Beane, A.; Price-Whelan, A. M.; Newton, E.; Curtis, J. L.; Berger, T.; van Saders, J.; **Kiman, R.**; Foreman-Mackey, D.; Lu, Y.; Anderson, L.; Faherty, J. K., The Astronomical Journal, Volume 160, Number 2 (2020) DOI: 10.3847/1538-3881/ab91b2

1. [Toward Precise Stellar Ages: Combining Isochrone Fitting with Empirical Gyrochronology.](#)
Angus, R., Morton, T. D., Foreman-Mackey, D., van Saders, J., Curtis, J., Kane, S. R., Bedell, M., **Kiman, R.**, Hogg, D. W.; Brewer, J. The Astronomical Journal, Volume 158, Issue 5, article id. 173, 12 pp. (2019). DOI: 10.3847/1538-3881/ab3c53