Rocio Kiman

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Kavli Institute for Theoretical Physics
University of California
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Appointments

Postdoctoral Scholar September 2021–Present
Kavli Institute for Theoretical Physics
University of California, Santa Barbara

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

Universidad de Buenos Aires 2011–2016
Licenciatura in Physics
Thesis Title: "Higgs boson pair production at the LHC"
Thesis Advisor: Prof. Daniel de Florian

Grants & Awards

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	Junes 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]

Invited Talks

Berkeley online short talk, April 22 2021, *Age Relations for Low-Mass Stars.*
Carnegie Observatories online Lunch Talk, March 19 2021, *Age Relations for Low-Mass Stars.*
CfA's Exoplanet Presentation Lounge online, February 23 2021, *Age Relations for Low-Mass Stars.*
Gemini Observatory Seminar, January 10 2020, Hilo, HI, USA. *Age-dating low mass stars using magnetic activity and kinematics.*
Leibniz-Institut für Astrophysik Potsdam (AIP) Seminar, July 2 2019, Potsdam, Germany. *Finding Age Relations for Low Mass Stars Using Magnetic Activity and Kinematics.*
Princeton University Seminar, May 23 2019, NJ, USA. *Finding Age Relations for Low Mass Stars Using Magnetic Activity and Kinematics.*
Invited panelist, AAS 233, 6–10 January, 2019, Seattle, Washington, USA. *An Open Discussion on Software.*

Contributed Presentations

University of Washington online Lunch Talk, March 9 2021, *Age Relations for Low-Mass Stars.*
Leiden Observatory online Lunch Talk, February 2 2021, *Age Relations for Low-Mass Stars.*
Dartmouth online Journal club, September 9 2020, *Age Relations for Low-Mass Stars.*
Poster presentation, AAS 235, 4-8 January, 2020, Honolulu, HI, USA. *Age-Activity relation for M dwarfs using Hα equivalent widths* Kiman R., Faherty J., Cruz K., Xu S., Schmidt S., Angus R., Gagné J., Bardalez Gagliuffi D., Rice E.
Contributed talk, TRAPPIST-1 conference, June 11–14, 2019, Liège, Belgium. *TRAPPIST-1 in the context of M-dwarfs re-defined by Gaia DR2.*
Contributed talk, Big Apple Magnetic Fields Conference, January 24–25, 2019, Center for Computational Astrophysics at the Flatiron Institute, NY, New York, USA. *Finding age relations for low mass stars using magnetic activity and kinematics.*
Poster presentation, AAS 233, 6–10 January, 2019, Seattle, Washington, USA. *Finding age relations for low mass stars using magnetic activity and kinematics.* Kiman, R., Schmidt, S.J., Angus, R., Cruz, K.L., Faherty, J.K. & Rice, E.
Poster presentation, Cool Stars, July 30 to August 3, 2018, Boston-Cambridge, USA. *Age Dating Low Mass Stars Using Galactic Kinematics.* Kiman, R., Schmidt, S.J., Angus, R., Cruz, K.L., Faherty, J.K. & Rice, E.
Contributed talk, Cool Stars, July 30 to August 3, 2018, Boston-Cambridge, USA. *Age Dating Low Mass Stars Using Galactic Kinematics.*
Contributed talk, Graduate Research Conference, May 10, 2018, College of Staten Island, NY, USA. *Age Dating Low Mass Stars Using Galactic Kinematics.*
Poster presentation, AAS 231, 8–12 January, 2018, Washington DC, USA. *Age Dating Low Mass Stars Using Galactic Kinematics.* Kiman, R., Cruz, K.L., Angus, R., Schmidt, S.J. & Faherty, J.K
Poster presentation, BDExoCon II, 26–27 October 2017, Delaware, USA. *Gaia-Cupid: Age-dating low mass stars using galactic kinematics.* Kiman, R., Cruz, K.L, Angus, R., Schmidt, S.J & Faherty, J.K.
Lightning Talk, SDSS-IV Collaboration Meeting, 24–26 July 2017, Santiago, Chile. *Gaia-Cupid: Age-dating low mass stars using galactic kinematics.*
Poster Presentation, 99 RNF-AFA (National Meeting of the Physical Association Argentina) 22–25 September, 2014, Buenos Aires, Argentina. *Photolysis of caged compounds with controlled temporal modulation.* Kiman, R., Camino, P., Ponce Dawson, S., Lopez, L., Piegari, S.

Schools and Selected Conferences Attended

LSST program September 8–13 2019, CCA, New York
Space Astrometry For Astrophysics. 3–7 June 2019, L'Aquila, Italy
.Astronomy X. 24–27 September 2018, Baltimore MD, USA.
Gaia Sprint. 4–8 to June, 2018, Center for Computational Astrophysics at the Flatiron Institute, NY, New York, USA.
Python in Astronomy. April 30 to May 4, 2018, Center for Computational Astrophysics at the Flatiron Institute, NY, New York, USA.
Gaia DR2 Sprint. 25–27 April, 2018, Center for Computational Astrophysics at the Flatiron Institute, NY, New York, USA.
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

Invited talk at the Graduate Student Research Symposium, October 23 2020. City College of New York, CUNY.
Public talk at *Viernes Astronómicos: Cuál es la edad de las estrellas?*, September 18 2020. Universidad Nacional Mayor de San Marcos, Lima, Perú. Open public. Available online.
Participation in the presentation in Spanish, September 24 2019. *Astronomía en Vivo: Historia del Universo*. 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.
Presenter at the Book Fair in Buenos Aires, May 2015.
Monthly outreach talks for high-school students about the career in Physics.

Observing experience

FIRE at the Magellan Telescope at Las Campanas Observatory in Chile. For the Backyard worlds project. December 10–13 2019
SpeX at the NASA Infrared Telescope Facility (NASA IRTF) Telescope at the Mauna Kea Observatory in Hawaii. Remote Observing. August 28 2018
CAPSCam at the DuPont Telescope at Carnegie's Las Campanas Observatory in Chile. Remote Observing. November 30 2017

First Author Publications

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

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; arXiv:2108.05321
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

Non-refereed Publications

1. `wdwarfdate`*: A python package to estimate white dwarfs ages in a Bayesian framework.* **Kiman, R.**; Xu, S.; Faherty, J.K.; Angus, R.; Casewell, S.L.; Gagné , J.; Cruz, K.L.; in prep.