ROCIO AYELÉN KIMAN

Citizenship: Argentina and Spanish

The Graduate Center, CUNY

Email: rociokiman@gmail.com Office Address: American Natural History Museum

Phone: +1 908 7372957 Central Park West at 79th Street

Website: https://rkiman.github.io New York, NY 10024, USA

Education The Graduate Center, CUNY, USA August 25 2016 – Expected Spring 2021

Ph.D. in Physics

Master of Philosophy Physics (June 2, 2020)

Thesis Advisors: Prof. Kelle Cruz & Prof. Jackie Faherty

Universidad de Buenos Aires, Argentina March 1 2011 – March 31 2016

Licenciatura in Physics

Thesis Title: "Higgs boson pair production at the LHC"

Thesis Advisor: Prof. Daniel de Florian

Appointments Non-Teaching Adjunct August 2020 – Present

Hunter College, CUNY

Graduate Research Assistant August 2017 – Present

Research Fundation, CUNY

Graduate Assistant A August 2019 – August 2020

Hunter College, CUNY

Non-Teaching Adjunct August 2017 – August 2019

Hunter College, CUNY

Non-Teaching Adjunct August 2016 – August 2017

Graduate Center, CUNY

Teaching Assistant March 2016 – August 2016

Universidad de Buenos Aires, Argentina

Teaching assistant for Classical Mechanics classes.

Grants & 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

Doctoral Student Research Grant (Round 14) for \$875

June 01 2019

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

Publications First author

Awards

Calibration of the H α 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.; Submitted to ApJ on August 14 2020.

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

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, accepted for publication in the Astrophysical Journal Supplement Series (2020) arXiv:2011.11616

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

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

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

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

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.

Evaluating Rotation Periods of M dwarfs

Popinchalk, M.; Faherty, J.; **Kiman, R.**; Angus, R.; Curtis, J.; Gagne, J.; Cruz, K.; Rice, E., in prep.

Gyro-Kinematic Ages for 29,949 Kepler Stars

Lu, Y.; Angus, R.; Curtis, J.L.; David, T.J., Kiman, R., submitted.

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

Age-dating low mass stars using magnetic activity and kinematics. Seminar, January 10 2020, Gemini Observatory, Hilo, HI, USA.

Finding Age Relations for Low Mass Stars Using Magnetic Activity and Kinematics. Seminar, July 2, 2019, Leibniz-Institut für Astrophysik Potsdam (AIP), Potsdam, Germany.

Finding Age Relations for Low Mass Stars Using Magnetic Activity and Kinematics. Seminar, May 23, 2019, Princeton University, NJ, USA.

An Open Discussion on Software. Invited panelist, AAS 233, 6–10 January, 2019, Seattle, Washington, USA

Contributed Presentations

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., Poster presentation, AAS 235, 4-8 January, 2020, Honolulu, HI, USA.

TRAPPIST-1 in the context of M-dwarfs re-defined by Gaia DR2. Contributed talk, TRAPPIST-1 conference, June 11–14, 2019, Liège, Belgium.

Finding age relations for low mass stars using magnetic activity and kinematics. 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. Kiman, R., Schmidt, S.J., Angus, R., Cruz, K.L., Faherty, J.K. & Rice, E., Poster presentation, AAS 233, 6–10 January, 2019, Seattle, Washington, USA.

Age Dating Low Mass Stars Using Galactic 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. 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. Kiman, R., Cruz, K.L., Angus, R., Schmidt, S.J. & Faherty, J.K, Poster presentation, AAS 231, 8–12 January, 2018, Washington DC, USA.

Gaia-Cupid: 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. Lightning Talk, SDSS-IV Collaboration Meeting, 24–26 July 2017, Santiago, Chile.

Photolysis of caged compounds with controlled temporal modulation. Kiman, R., Camino, P., Ponce Dawson, S., Lopez, L., Piegari, S., Poster Presentation, 99 RNF-AFA (National Meeting of the Physical Association Argentina) 22–25 September, 2014, Buenos Aires, Argentina.

Conferences Attended

AAS 235. 4–8 January, 2020, Honolulu, HI, USA.

BDExoCon III. 21–22 October, 2019, Newark, DE, USA.

TRAPPIST-1 conference. June 11–14, 2019, Liège, Belgium.

AAS 233. 6–10 January, 2019, Seattle, Washington, USA.

. Astronomy X. 24–27 September 2018, Baltimore MD, USA.

Cool Stars. July 30 to August 3, 2018, Boston-Cambridge, 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.

AAS 231. 8-12 January, 2018, Washington DC, USA.

BDExoCon II. 26–27 October 2017, Newark, DE, USA.

SDSS-IV Collaboration Meeting. 24–26 July 2017, Santiago, Chile.

Schools Attended

Space Astrometry For Astrophysics. 3–7 June 2019, L'Aquila, Italy

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

January 27 – May 28 2020

Hunter College, CUNY, New York, USA

ASTRO 10200 - Laboratory Explorations in Astronomy Hunter College, CUNY, New York, USA August 26 – December 12 2019

Classical Mechanics

March 1 – June 30 2016

University of Buenos Aires, Argentina

Private Tutor

March 01 2009 – December 25 2015

for High-School and Undergraduate Students

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? Universidad Nacional Mayor de San Marcos, Lima, Perú. Open public.

September 18 2020

Available online.

Participation in the presentation in Spanish Astronomía en Vivo: Historia del Universo

September 24 2019

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 December $10-13\ 2019$ in Chile. For the Backyard worlds project.

SpeX at the NASA Infrared Telescope Facility (NASA IRTF)

August 28 2018
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.