

Gregory Simonian

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Education

The Ohio State University <i>Ph.D Astronomy, Advisor: Prof. Marc Pinsonneault</i> <i>Thesis title: Double Trouble: The Impact of Binarity on Large Stellar Rotation Datasets</i>	Columbus, OH 2013–2019
California Institute of Technology <i>B.S. Astronomy, Cum Laude</i>	Pasadena, CA 2009–2013

Teaching Experience

Concord University <i>Assistant Professor of Astronomy and Physics</i> Taught Introductory Astronomy, Calculus-Based Physics Laboratory and Conceptual Physical Science	Athens, WV 2019–present
The Ohio State University <i>Graduate Teaching Assistant</i> Teaching assistant for 13 courses at OSU, including online courses. Instructor of Record for one in-person course and one online course.	Columbus, OH 2013–2019
California Institute of Technology <i>Undergraduate Teaching Assistant</i> Teaching assistant for astronomy for non-majors course.	Pasadena, CA 2012

Seminars

National.....	
Double Trouble: Biases Caused by Binaries in Large Rotation Datasets <i>234th Conference of the American Astronomical Society</i>	Saint Louis, MO June 2019
Double Trouble: The Impact of Binarity in Large Rotation Datasets <i>National Society for Black Physicists Conference</i>	Columbus, OH November 2018
Local.....	
Two's Company: How Binary Stars Impact Stellar Spin <i>Concord University Faculty Seminar Series</i>	Athens, WV February 2020
The Leaky STEM Pipeline: Middle and High School <i>OSU Diversity Journal Club</i>	Columbus, OH May 2014

Continuing Education

Classes

Quality Matters: Applying the Quality Matters Rubric December 2019

Conferences

American Astronomical Society: 237th Conference of the AAS January 2021

National Science Teacher's Association: Engage Fall20 Conference November 2020

Blackboard: BBWorld 20 August 2020

WV Network for Educational Telecomputing: Professional Development Week July 2020

SciAccess: Conference on making science accessible June 2019

Service

University

Academic Policy Council: Concord University 2020–2021

Pre-Health Advisory Council: Concord University 2019–2021

Armenian Students Association: President/Treasurer 2014–2018

Community

AAS Congressional Visit Day: Funding for NSF and NASA Science March 2021

TV Appearance: *Perseverance* Commentator for WVVA, Bluefield WV February 2021

Astrophysical Journal: Peer Reviewer 2020–2021

OSU Planetarium : Presenter 2014–2019

OSU Science Olympiad: Judge April 2019

Ohio State Science Day: Judge May 2018

Proposals

PI: “Tidally-synchronized binaries in the *Kepler* Field” Observing Proposal
APOGEE Ancillary, 61 targets scheduled for Summer 2019

PI: “Tidally-synchronized binaries in the *Kepler* Field” Observing Proposal
MDM 2.4-meter telescope, 14 nights observed in 2017B.

Observing Experience

MDM 2.4-meter Hiltner Telescope **14 nights**
Optical Spectroscopy *Summer 2017*

Part of thesis project to detect RV variability in *Kepler* rapid rotators

MDM 2.4-meter Hiltner Telescope **5 nights**
Optical Spectroscopy and Photometry *Winter 2017*

Queue Observing

Large Binocular Telescope

Optical Spectroscopy and Photometry
Queue Observing

19 nights
Summer 2014

MDM 1.3-meter McGraw-Hill Telescope

Optical Spectroscopy
Reverberation Mapping Campaign

9 nights
Winter 2014

MDM 2.4-meter Hiltner Telescope

Optical Spectroscopy and Photometry
DES Quasars

9 nights
Autumn 2013

Palomar 200"

Optical Spectroscopy
Time-Resolved Spectroscopy of CR Boo for Senior Thesis

3 nights
Spring 2011

Professional Organizations

American Astronomical Society: Member

2018-present

American Association for the Advancement of Science: Member

2020-present

Skills

Python: Numpy, Scipy, Astropy, Emcee

Primary Programming Language

Other Languages: C, Java, Haskell, Mathematica, Matlab, IDL

Basic Knowledge

LMSs: Canvas, Moodle, Blackboard

Armenian: Conversational

First Author Publications

- [3] Gregory V. A. Simonian et al. "Rapid Rotation of Kepler Field Dwarfs and Subgiants: Spectroscopic $v \sin i$ from APOGEE". In: 898.1, 76 (July 2020), p. 76. DOI: 10.3847/1538-4357/ab9a43. arXiv: 2006.14642 [astro-ph.SR].
- [2] Gregory V. A. Simonian, Marc H. Pinsonneault, and Donald M. Terndrup. "Rapid Rotation in the Kepler Field: Not a Single Star Phenomenon". In: 871.2, 174 (Feb. 2019), p. 174. DOI: 10.3847/1538-4357/aaf97c. arXiv: 1809.02141 [astro-ph.SR].
- [1] Gregory V. Simonian and Paul Martini. "Circumstellar dust, PAHs and stellar populations in early-type galaxies: insights from GALEX and WISE". In: 464.4 (Feb. 2017), pp. 3920–3936. DOI: 10.1093/mnras/stw2623. arXiv: 1603.09345 [astro-ph.GA].

Co-Authored Publications

- [20] Keith Horne et al. "Space Telescope and Optical Reverberation Mapping Project. IX. Velocity-Delay Maps for Broad Emission Lines in NGC 5548". In: 907.2, 76 (Feb. 2021), p. 76. DOI: 10.3847/1538-4357/abce60. arXiv: 2003.01448 [astro-ph.GA].

- [19] P. R. Williams et al. "Space Telescope and Optical Reverberation Mapping Project. XII. Broad-line Region Modeling of NGC 5548". In: 902.1, 74 (Oct. 2020), p. 74. DOI: 10.3847/1538-4357/abbad7. arXiv: 2010.00594 [astro-ph.GA].
- [18] D. S. Aguado et al. "The Fifteenth Data Release of the Sloan Digital Sky Surveys: First Release of MaNGA-derived Quantities, Data Visualization Tools, and Stellar Library". In: 240.2, 23 (Feb. 2019), p. 23. DOI: 10.3847/1538-4365/aaf651. arXiv: 1812.02759 [astro-ph.IM].
- [17] G. A. Kriss et al. "Space Telescope and Optical Reverberation Mapping Project. VIII. Time Variability of Emission and Absorption in NGC 5548 Based on Modeling the Ultraviolet Spectrum". In: 881.2, 153 (Aug. 2019), p. 153. DOI: 10.3847/1538-4357/ab3049. arXiv: 1907.03874 [astro-ph.GA].
- [16] A. R. G. Santos et al. "Surface Rotation and Photometric Activity for Kepler Targets. I. M and K Main-sequence Stars". In: 244.1, 21 (Sept. 2019), p. 21. DOI: 10.3847/1538-4365/ab3b56. arXiv: 1908.05222 [astro-ph.SR].
- [15] Sarah J. Schmidt et al. "The Largest M Dwarf Flares from ASAS-SN". In: 876.2, 115 (May 2019), p. 115. DOI: 10.3847/1538-4357/ab148d. arXiv: 1809.04510 [astro-ph.SR].
- [14] G. De Rosa et al. "Velocity-resolved Reverberation Mapping of Five Bright Seyfert 1 Galaxies". In: *ApJ* 866, 133 (Oct. 2018), p. 133. DOI: 10.3847/1538-4357/aadd11.
- [13] M. M. Fausnaugh et al. "Continuum Reverberation Mapping of the Accretion Disks in Two Seyfert 1 Galaxies". In: *ApJ* 854, 107 (Feb. 2018), p. 107. DOI: 10.3847/1538-4357/aaaa2b.
- [12] M. M. Fausnaugh et al. "Reverberation Mapping of Optical Emission Lines in Five Active Galaxies". In: 840.2, 97 (May 2017), p. 97. DOI: 10.3847/1538-4357/aa6d52. arXiv: 1610.00008 [astro-ph.GA].
- [11] T. W. -S. Holoiien et al. "The ASAS-SN bright supernova catalogue - I. 2013-2014". In: *MNRAS* 464 (Jan. 2017), pp. 2672–2686. DOI: 10.1093/mnras/stw2273.
- [10] T. W. -S. Holoiien et al. "The ASAS-SN bright supernova catalogue - II. 2015". In: 467.1 (May 2017), pp. 1098–1111. DOI: 10.1093/mnras/stx057. arXiv: 1610.03061 [astro-ph.HE].
- [9] S. Mathur et al. "Space Telescope and Optical Reverberation Mapping Project. VII. Understanding the Ultraviolet Anomaly in NGC 5548 with X-Ray Spectroscopy". In: *ApJ* 846, 55 (Sept. 2017), p. 55. DOI: 10.3847/1538-4357/aa832b.
- [8] L. Pei et al. "Space Telescope and Optical Reverberation Mapping Project. V. Optical Spectroscopic Campaign and Emission-line Analysis for NGC 5548". In: 837.2, 131 (Mar. 2017), p. 131. DOI: 10.3847/1538-4357/aa5eb1. arXiv: 1702.01177 [astro-ph.GA].
- [7] Samuel J. Swihart et al. "2FGL J0846.0+2820: A New Neutron Star Binary with a Giant Secondary and Variable γ -Ray Emission". In: *ApJ* 851, 31 (Dec. 2017), p. 31. DOI: 10.3847/1538-4357/aa9937.
- [6] Subo Dong et al. "ASASSN-15lh: A highly super-luminous supernova". In: *Science* 351 (Jan. 2016), pp. 257–260. DOI: 10.1126/science.aac9613.
- [5] T. W. -S. Holoiien et al. "Six months of multiwavelength follow-up of the tidal disruption candidate ASASSN-14li and implied TDE rates from ASAS-SN". In: *MNRAS* 455 (Jan. 2016), pp. 2918–2935. DOI: 10.1093/mnras/stv2486.

- [4] B. J. Shappee et al. "The Young and Bright Type Ia Supernova ASASSN-14lp: Discovery, Early-time Observations, First-light Time, Distance to NGC 4666, and Progenitor Constraints". In: *ApJ* 826, 144 (Aug. 2016), p. 144. DOI: 10.3847/0004-637X/826/2/144.
- [3] H. C. Campbell et al. "Total eclipse of the heart: the AM CVn Gaia14aae/ASSASN-14cn". In: *MNRAS* 452 (Sept. 2015), pp. 1060–1067. DOI: 10.1093/mnras/stv1224.
- [2] A. Pastorello et al. "Massive stars exploding in a He-rich circumstellar medium - VII. The metamorphosis of ASASSN-15ed from a narrow line Type Ibn to a normal Type Ib Supernova". In: *MNRAS* 453 (Nov. 2015), pp. 3649–3661. DOI: 10.1093/mnras/stv1812.
- [1] David Levitan et al. "Five new outbursting AM CVn systems discovered by the Palomar Transient Factory". In: *MNRAS* 430 (Apr. 2013), pp. 996–1007. DOI: 10.1093/mnras/sts672. arXiv: 1212.5312 [astro-ph.SR].