Gregory Simonian

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Education

The Ohio State University **Columbus**
Ph.D Astronomy, Advisor: Prof. Marc Pinsonneault *2013–*
(Expected August 2019)

California Institute of Technology **Pasadena**
B.S. Astronomy, Cum Laude *2009-2013*

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 **19 nights**
Optical Spectroscopy and Photometry *Summer 2014*
Queue Observing

MDM 1.3-meter McGraw-Hill Telescope **9 nights**
Optical Spectroscopy *Winter 2014*
Reverberation Mapping Campaign

MDM 2.4-meter Hiltner Telescope **9 nights**
Optical Spectroscopy and Photometry *Autumn 2013*
DES Quasars

Palomar 200" **3 nights**
Optical Spectroscopy *Spring 2011*
Time-Resolved Spectroscopy of CR Boo for Senior Thesis

Teaching Experience

The Ohio State University **Columbus**
Instructor *2019–*
Instructor of Record for Astronomy 1140 "Planets and the Solar System". I hold lectures, write assessments, and supplement the lectures with planetarium shows.

The Ohio State University **Columbus**
Graduate Teaching Assistant *2013–2018*
Teaching assistant for 13 courses at OSU. Responsibilities included weekly laboratory sections, grading homework assignments, and holding office hours

California Institute of Technology **Pasadena**
Undergraduate Teaching Assistant *2012*
Teaching assistant for astronomy for non-majors course. As part of this course, I led weekly recitation sections for my students, graded their homework assignments with feedback, and facilitated a final group presentation to be delivered by the students on the last day of classes.

Seminars

Double Trouble: The Impact of Binarity in Large Rotation Datasets
National Society for Black Physicists Conference *November 2018*

Leadership

Student Organization: Armenian Students Association
- **President** 2017–2018, 2014–2015
- **Treasurer** 2015–2017

Student Faculty Council: Astrophysics Option
- **Chair** 2012-13
- **Member** 2010-11

Languages

Python: Numpy, Scipy, Astropy, Emcee *Primary Programming Language*

Other Languages: C, Java, Haskell, Mathematica, Matlab, IDL *Basic Knowledge*

English: Fluent *Primary language*

Armenian: Conversational *Native Language*

First Author Publications

[2] Gregory V. A. Simonian, Marc H. Pinsonneault, and Donald M. Terndrup. "Rapid Rotation in the Kepler Field: Not a Single Star Phenomenon". In: *ApJ* 871, 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: *MNRAS* 464 (Feb. 2017), pp. 3920–3936. DOI: 10.1093/mnras/stw2623.

Co-Authored Publications

[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: *ApJ* 840, 97 (May 2017), p. 97. DOI: 10.3847/1538-4357/aa6d52.

[11] T. W. -S. Holoien 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. Holoien et al. "The ASAS-SN bright supernova catalogue - II. 2015". In: *MNRAS* 467 (May 2017), pp. 1098–1111. DOI: 10.1093/mnras/stx057.

[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: *ApJ* 837, 131 (Mar. 2017), p. 131. DOI: 10.3847/1538-4357/aa5eb1.

[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. Holoien 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].