

# Devontae C. Baxter

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## EDUCATION

**The University of California, Irvine**, Irvine, California, USA

- Doctorate of Philosophy (Ph.D.) in Physics September 2017 – June 2023

**Georgia Institute of Technology**, Atlanta, Georgia, USA

- Bachelor of Science (B.S.) in Physics January 2015 – May 2017
  - Concentration: Astrophysics
  - Minor: Spanish
  - Graduated with Highest Honors

**Georgia State University Perimeter College**, Clarkston, Georgia, USA

- Associate of Science (A.S.) in Physics June 2012 – December 2014

## PUBLICATIONS & PREPRINTS

7. **D. Baxter**, M. C. Cooper “Constraining the Satellite Quenching Timescale in Galaxy Groups at  $z \gtrsim 0.8$ ”, In Prep.
6. **D. Baxter**, M. C. Cooper, M. Balogh, G. Rudnick, G. De Lucia, R. Demarco, A. Finoguenov, B. Forrest, A. Muzzin, A. Reeves, F. Sarron, B. Vulcani, G. Wilson, D. Zaritsky, “When the Well Runs Dry: Modeling Environmental Quenching of High-mass Satellites in Massive Clusters at  $z \gtrsim 1$ ”, *Monthly Notices of the Royal Astronomical Society*, vol. 526, no. 3, pp. 3716–3729, October 2023 (arXiv:2306.09404).
5. E. Kukstas, M. Balogh, I. McCarthy, Y. Bahé, G. De Lucia, P. Jablonka, B. Vulcani, **D. Baxter**, A. Biviano, P. Cerulo, J. Chan, M. C. Cooper, R. Demarco, A. Finoguenov, A. Font, C. Lidman, J. Marchioni, S. McGee, A. Muzzin, J. Nantais, L. Old, I. Pintos-Castro, B. Poggianti, A. Reeves, G. Rudnick, F. Sarron, R. van der Burg, K. Webb, G. Wilson, H. Yee, D. Zaritsky, “The GOGREEN Survey: A Critical Assessment of Environmental Trends in Cosmological Hydrodynamical Simulations at  $z \approx 1$ ”, *Monthly Notices of the Royal Astronomical Society*, vol. 518, no. 3, pp. 4782–4800, January 2023 (arXiv:2210.10803).
4. **D. Baxter**, M. C. Cooper, M. Balogh, T. Carelton, P. Cerulo, G. De Lucia, R. Demarco, S. McGee, A. Muzzin, J. Nantais, I. Pintos-Castro, A. Reeves, G. Rudnick, F. Sarron, R. van der Burg, K. B. Vulcani, G. Wilson, D. Zaritsky, “The GOGREEN Survey: The GOGREEN Survey: Constraining the Satellite Quenching Timescale in Massive Clusters at  $z \gtrsim 1$ ”, *Monthly Notices of the Royal Astronomical Society*, vol. 515, no. 4, pp. 5479–5494, October 2022 (arXiv:2207.14302).
3. M. K. Rodriguez Wimberly, M. C. Cooper, **D. Baxter**, Boylan-Kolchin, J. S. Bullock, S. P. Fillingham, A. P. Ji, L. V. Sales, J. D. Simon, “Sizing from the Smallest Scales: The Mass of the Milky Way”, *Monthly Notices of the Royal Astronomical Society*, vol. 513, no. 4, pp. 4968–4982, July 2022 (arXiv:2109.00633).
2. **D. Baxter** M. C. Cooper, S. P. Fillingham, “A Machine Learning Approach to Measuring the Quenched Fraction of Low-Mass Satellites Beyond the Local Group”, *Monthly Notices of the Royal Astronomical Society*, vol. 503, no. 2, pp. 1636–1645, May 2021 (arXiv:2102.05050).
1. S. Mahajan, M. Tennenbaum, S. N. Pathak, **D. Baxter**, X. Fan, P. Padilla, C. Anderson, A. Fernandez-Nieves, M. P. Ciamarra, “Reverse Janssen Effect in Narrow Granular Columns”, *Physical Review Letters*, vol. 124, no. 12, pp. 128002, February 2020 (arXiv:2005.14404).

<b>ACADEMIC AWARDS</b>	<ul style="list-style-type: none"> <li>▪ NSF Astronomy and Astrophysics Postdoctoral Fellowship July 2023</li> <li>▪ UC Chancellor’s Postdoctoral Fellowship July 2023</li> <li>▪ National Osterbrock Leadership Program Fellowship June 2020</li> <li>▪ LSSTC Data Science Fellowship April 2019</li> <li>▪ Eugene Cota-Robles Fellowship September 2017</li> <li>▪ Tulsa Community Foundation: AMC Cares Scholarship July 2015</li> <li>▪ Georgia Hope Scholarship January 2014</li> </ul>
<b>INVITED TALKS</b>	<ul style="list-style-type: none"> <li>▪ The Center for Relativistic Astrophysics Seminar, Georgia Institute of Technology, Atlanta, GA (Nov 2023)</li> <li>▪ Astronomy Colloquium, The University of California, San Diego, San Diego, CA (Oct 2023)</li> <li>▪ The Baryon Cycle of Protocluster Galaxies, Leiden, the Netherlands (Oct 2023)</li> <li>▪ First Structures in the Universe 2023, Paris, France (Sep 2023)</li> <li>▪ Conference for Emerging Black Academics in STEM, Caltech, CA (May 2023)</li> <li>▪ Astronomy Seminar, The University of Kansas, Lawrence, KS (April 8, 2022)</li> <li>▪ Little Galaxies Journal Club, The Ohio State University, Columbus, OH (March 29, 2021)</li> </ul>
<b>CONTRIBUTED TALKS</b>	<ul style="list-style-type: none"> <li>▪ AAS 243 Meeting, New Orleans, LA (January, 2024)</li> <li>▪ AAS 240 Meeting, Pasadena, CA (June, 2022)</li> </ul>
<b>TEACHING EXPERIENCE</b>	<p><b>Ardent Academy for Gifted Youth</b>, Irvine, California, USA</p> <ul style="list-style-type: none"> <li>▪ Physics Instructor December 2019 – December 2019 <ul style="list-style-type: none"> <li>• Physics Olympiad Winter Bootcamp</li> </ul> </li> </ul> <p><b>UC, Irvine Department of Physics and Astronomy</b>, Irvine, California, USA</p> <ul style="list-style-type: none"> <li>▪ Teaching Assistant September 2018 – June 2019 <ul style="list-style-type: none"> <li>• Physics 20D (Space Science) Fall 2018</li> <li>• Physics 20B (Cosmology) Winter 2019</li> <li>• Physics 20E (Life in the Universe) Spring 2019</li> </ul> </li> </ul>
<b>OBSERVING PROPOSALS AND GRANTS</b>	<p>Co-Investigator</p> <ul style="list-style-type: none"> <li>• Keck/KCWI - Smudges in Stripe 82: A KCWI Survey of UDGs in the Field (2020-2021, 5 nights)</li> <li>• Keck/DEIMOS - Deeper than DEEP: a DEIMOS Survey of the JWST Cosmic Evolution Early Release Science Field (2020, 3.5 nights)</li> </ul>
<b>OBSERVING EXPERIENCE</b>	<p>Keck Observatory</p> <ul style="list-style-type: none"> <li>• DEIMOS: 16</li> <li>• KCWI: 4.5</li> </ul>
<b>TECHNICAL SKILLS</b>	<p><math>\LaTeX</math>, Python (Astropy, Keras, NumPy, Matplotlib, Pandas, Scikit-Learn, SciPy), Machine Learning (PyTorch, Tensorflow), Bayesian Statistics, GitHub, Bash, SQL, Unix/MacOS, Mathematica</p>
<b>CERTIFICATES</b>	<ul style="list-style-type: none"> <li>▪ Certification in Course Design by UCI Division of Teaching Excellence and Innovation</li> <li>▪ Certification for the Integration of Research, Teaching and Learning by UCI Division of Teaching Excellence and Innovation</li> <li>▪ Mentoring Excellence Program Certification by UCI Graduate Division</li> </ul>
<b>OUTREACH &amp; SERVICE</b>	<p><b>Computational Research Access Network (CRANE)</b>, Irvine, California, USA</p> <ul style="list-style-type: none"> <li>▪ Instructor &amp; Teaching Assistant August 2022 –</li> </ul>

**UCI Physics and Astronomy Community Excellence Peer Mentoring Program**, Irvine, California, USA

- Co-Chair & Administrator August 2020 – June 2023

**UCI Observatory - Astronomy Outreach Program**, Irvine, California, USA

- Co-Organizer October 2018 – March 2020

**UCI Physics Graduate Caucus**, Irvine, California, USA

- Social Event Chair October 2018 – March 2020

**Good Samaritan Health Center**, Atlanta, Georgia, USA

- Spanish Interpreter January 2017 – April 2017

**LANGUAGES**

- English: Native language
- Spanish: Fluent
- French: Intermediate