

## Tim B. Miller

<b>Education</b>	<i>Ph.D Candidate, Astronomy</i> Yale University, CT, USA Supervisor: Pieter van Dokkum	Class of 2023
	<i>Masters of Science, Physics</i> Dalhousie University, Nova Scotia, Canada Supervisor: Scott Chapman Thesis: <i>Star Formation Rate Indicators in the FIRE Simulations &amp; SPT2349-56: A Massive and Active Proto-cluster</i>	Awarded August 2017
	<i>Bachelor of Science, First Class Honors in Physics</i> Dalhousie University, Nova Scotia, Canada	Awarded May 2015
<b>Research Interests</b>	Galaxy formation and evolution; galaxy structure; galaxy sizes; galaxy photometry; low surface brightness observations; outskirts of galaxies	
<b>Publications</b>		
<b>First Authored</b>	<b>Miller, T. B.</b> , van Dokkum, P., Danieli, S., et al. 2020, “The Dragonfly Wide Field Survey. II. Accurate Total Luminosities and Colors of Nearby Massive Galaxies and Implications for the Galaxy Stellar Mass Function”, <i>Astrophysical Journal</i> , in Review, arXiv:2010.07310	
	<b>Miller, T. B.</b> , van den Bosch, F. C., Green, S. B., et al. 2020, “Dynamical self-friction: how mass loss slows you down ”, <i>MNRAS</i> , 495, 4496.	
	<b>Miller, T. B.</b> , Scott Chapman, Chris Hayward, Peter Behroozi, Matt Bradford, Chris Willott, Jeff Wagg, 2020, “Investigating overdensities around $z > 6$ Galaxies through ALMA observations of [CII]”, <i>Astrophysical Journal</i> , 889, 2, arXiv:1611.08552	
	<b>Miller, T. B.</b> , van Dokkum, P., Mowla, L., et al. 2019, “A New View of the Size-Mass Distribution of Galaxies: Using $r_{20}$ and $r_{80}$ Instead of $r_{50}$ ”, <i>Astrophysical Journal Letters</i> , 872, L14	
	<b>Miller, T. B.</b> , Chapman, S. C., Aravena, M., et al., 2018, “A massive core for a cluster of galaxies at a redshift of 4.3” , <i>Nature</i> , 556, 469	
	<b>Miller, T. B.</b> , Hayward, C. C., Chapman, S. C., et al. 2015, “The bias of the sub-millimetre galaxy population: SMGs are poor tracers of the most-massive structures in the $z \sim 2$ Universe”, <i>Monthly Notices of the Royal Astronomical Society</i> , 452, 878	
<b>Selected Co-authored</b>	Danieli, S., Lokhorst, D., Zhang, J., ... <b>Miller, T. B.</b> ... , et al. 2019, ” The Dragonfly Wide Field Survey. I. Telescope, Survey Design and Data Characterization”, <i>Astrophysical Journal</i> , submitted, arXiv:1910.14045	
	Mowla, L., van der Wel, A., van Dokkum, P. and <b>Miller, T. B.</b> , ” A Mass-dependent Slope of the Galaxy Size-Mass Relation out to $z \sim 3$ : Further Evidence for a Direct	

	Relation between Median Galaxy Size and Median Halo Mass”, 2019, Astrophysical Journal Letters, 872, L13	
	Marrone, D. P., Spilker, J. S., Hayward, C. C., ... <b>Miller, T. B.</b> ... , et al. Galaxy growth in a massive halo in the first billion years of cosmic history, Nature, 2018, 553, 51	
	Strandet, M. L., Weiss, A., De Breuck, C., ... <b>Miller, T. B.</b> ... , et al. , “ISM Properties of a Massive Dusty Star-forming Galaxy Discovered at $z \sim 7$ ”, Astrophysical Journal Letters, 2017, 842, L15	
	Orr, M. E., Hayward, C. C., Nelson, E. J., ... <b>Miller, T. B.</b> ... , et al. “Stacked Star Formation Rate Profiles of Bursty Galaxies Exhibit “Coherent” Star Formation”, Astrophysical Journal Letters , 2017, 849, L2	
<b>Conference Presentations &amp; Seminars</b>	AAS 235 Honolulu, Hawaii, USA “The total luminosity of galaxies in the Dragonfly Wide Field Survey: Implications for the high-mass end of the stellar mass function”	Jan 2020
	SMA Offices Hilo, Hawaii, USA “The Bias of Submillimetre Galaxies”	Jul. 2015
	Canadian Undergraduate Physics Conference Queen’s University, Ontario, Canada “The Bias of Submillimetre Galaxies”	Oct. 2014
<b>Observing Experience</b>	HST / WFC3 · Extensive experience working with NIR imaging data	
	Keck I - MOSFIRE · 3 nights observing	Nov. 2018
	SMA · Guest observer for 5 nights	July 2016
<b>Academic Scholarships &amp; Awards</b>	Gruber Science Fellowship · held at Yale University	2017 - Present
	Killam Predoctoral Scholarship-Master’s · held at Dalhousie University	2016 - 2017
	NSERC Canada Graduate Scholarship-Master’s · held at Dalhousie University	2016
<b>Community and Outreach</b>	Galaxy lunch Organizer · Moderated weekly discussion of new papers and organized speaker series.	Fall 2019 - Present
	Astronomy on tap New Haven public talk · “The Hubble constant and our expanding universe”	July 2019

Member of Yale astronomy student council Fall 2018 - Present  
 · Worked with students and faculty to provide feedback on the graduate program

Physics Fun and Discovery Days, Dalhousie University                      Summers 2013-2016  
· Preformed physics demonstrations to elementary and junior high school students

## Teaching experience

Teaching Assistant, Yale University - Research methods in Astronomy      Fall 2019  
· Assisted students in learning to code and analyzing astronomical data

Teaching Assistant, Yale University - Introductory Astronomy      Spring 2017  
· Assisted students in completing assignments

Teaching Assistant, Yale University - Intro to Astronomical Observing      Fall 2017  
 · Assisted students in operating a 16" telescope and analysing observations

Teaching Assistant, Dalhousie University - Introductory Physics                      2014 - 2016  
· Assisted students in completing assignments

## Personal and Contact Information

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