

## Dhruba Dutta Chowdhury

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52 Hillhouse Avenue, New Haven, CT-06511, USA

Email: dhruba.duttachowdhury@yale.edu

ORCID iD: 0000-0003-0250-3827

Nationality: Indian

<b>RESEARCH INTERESTS</b>	Classical Dwarfs and Ultra Diffuse Galaxies, Globular Clusters, Fuzzy Dark Matter, Galaxy Dynamics	
<b>EDUCATION</b>	<b>Yale University, New Haven, CT, USA</b>	2016-
	<ul style="list-style-type: none"><li>• Ph.D. in Astronomy, Expected May 2022</li><li>• Advisors: Frank van den Bosch and Pieter van Dokkum</li><li>• M.S., M.Phil. in Astronomy, May 2018</li></ul>	
	<b>Presidency University, Kolkata, India</b>	2013-2015
	<ul style="list-style-type: none"><li>• M.Sc. in Physics</li><li>• Thesis: The Sunyaev-Zel'dovich Signal from Quasar Host Halos</li><li>• Advisor: Suchetana Chatterjee</li></ul>	
	<b>Presidency College, University of Calcutta</b>	2010-2013
	<ul style="list-style-type: none"><li>• B.Sc (Honors) in Physics</li><li>• Minor in Mathematics and Chemistry</li></ul>	
<b>POSITIONS</b>	<b>Yale University, Astronomy Department</b>	2018-
	<ul style="list-style-type: none"><li>• Graduate Research Assistant</li><li>• Advisors: Frank van den Bosch and Pieter van Dokkum</li></ul>	
	<b>Presidency University, Physics Department</b>	2015-2016
	<ul style="list-style-type: none"><li>• Project Assistant (Junior Research Fellow)</li><li>• Project Title: Modeling the 21 cm Signal from the Dark Ages</li><li>• Advisor: Kanan Kumar Datta</li></ul>	
<b>AWARDS</b>	<ul style="list-style-type: none"><li>• Sheldon Wise Pre-Doctoral Fellowship, Yale University 2017-2018</li><li>• Junior Research Fellowship, Dept. of Science &amp; Technology, India 2015-2016</li><li>• INSPIRE scholarship, Dept. of Science &amp; Technology, India 2010-2015</li><li>• Lilabati Ray Memorial Prize for Best Seminar, Presidency University 2015</li></ul>	
<b>PROFESSIONAL ACTIVITIES</b>	<ul style="list-style-type: none"><li>• Referee for ApJ 2019-</li><li>• Yale Astronomy Graduate Student Talks SOC Member Spring 2019</li><li>• Galaxy Lunch Moderator, Yale Astronomy Department 2017-2018</li></ul>	

## TEACHING EXPERIENCE

- Teaching Fellow, Planets and Stars, Yale University Spring 2017
- Teaching Fellow, Galaxies and the Universe, Yale University Fall 2017, 2019

## FIRST AUTHOR PAPERS

1. **Dutta Chowdhury, D.**, van den Bosch, F.C., Robles, V.H., van Dokkum, P. et al. “On the Random Motion of Nuclear Objects in a Fuzzy Dark Matter Halo”, submitted to ApJ
2. **Dutta Chowdhury, D.**, van den Bosch, F.C., and van Dokkum, P. “On the Evolution of the Globular Cluster System in NGC 1052-DF2: Dynamical Friction, Globular-Globular Interactions, and Galactic Tides” 2020, ApJ, 903, 149
3. **Dutta Chowdhury, D.**, van den Bosch, F.C., and van Dokkum, P. “On the Orbital Decay of Globular Clusters in NGC 1052-DF2: Testing a Baryon Only Mass Model” 2019, ApJ, 877, 133
4. **Dutta Chowdhury, D.** and Chatterjee, S. “Sunyaev-Zel’dovich Signal from Quasar Hosts: Implications for Detection of Quasar Feedback” 2017, ApJ, 839, 34

## CO-AUTHOR PAPERS

1. Shen Z., Danieli, D., van Dokkum P. et al. including **Dutta Chowdhury D.** [10 total] “A Tip of the Red Giant Branch Distance of  $22.1 \pm 1.2$  Mpc to the Dark Matter Deficient Galaxy NGC 1052-DF2 from 40 Orbits of Hubble Space Telescope Imaging”, submitted to ApJ
2. Ansar, S., Datta, K.K. and **Dutta Chowdhury, D.** “Impact of Inhomogeneous CMB Heating of Gas on the HI 21-cm Signal During Dark Ages” 2018, PhysRevD, 98, 103505

## CONTRIBUTED TALKS

1. “Imprints of the Recombination History of the Universe on the HI 21-cm Signal from the Dark Ages, Epoch of Reionization Workshop, IIT Kharagpur, India, July 2016
2. “Sunyaev-Zel’dovich Signal from Quasar Hosts: Implications for Quasar Feedback Detection”, Topical Conference on Gravity, Cosmology, Astronomy and Astrophysics, Eastern Region, IISER, Kolkata, India, Sept 2015

## INVITED TALKS

1. “On the Dynamics of the Globular Cluster System in NGC 1052-DF2: The Galaxy Lacking Dark Matter”, Physics Club Talk, Presidency University, Kolkata, India, June 2019

## POSTER PRESENTATIONS

1. “On the Orbital Decay of Globular Clusters in NGC 1052-DF2: Testing a Baryon Only Mass Model”, Santa Cruz Galaxy Workshop, University of California, Santa Cruz, USA, Aug 2019
2. “On the Orbital Decay of Globular Clusters in NGC 1052-DF2: Testing a Baryon Only Mass Model”, Small Galaxies, Cosmic Questions Conference, Durham University, Durham, UK, July 2019
3. “Sunyaev-Zel’dovich Signal from Quasar Hosts: Implications for Quasar Feedback Detection”, International Conference on Gravitation and Cosmology, IISER Mohali, India, Dec 2015

## COMPUTATIONAL SKILLS

- N-Body simulations with GADGET
- Fuzzy Dark Matter simulations with GAMER (AMR Code)
- Programming skills in C, C++, FORTRAN 77, MATLAB, and Python