Dhruba Dutta Chowdhury

52 Hillhouse Avenue, New Haven, CT-06511, USA Email: dhruba.duttachowdhury@yale.edu ORCID iD: 0000-0003-0250-3827 Nationality: Indian

RESEARCH INTERESTS	Classical Dwarfs and Ultra Diffuse Galaxies, Globular Clusters, Fuzzy Dark Matter, Galaxy Dynamics	
EDUCATION	Yale University, New Haven, CT, USA - Ph.D. in Astronomy, Expected May 2022 - Advisors: Frank van den Bosch and Pieter van Dokkum - M.S., M.Phil. in Astronomy, May 2018	2016-
	Presidency University, Kolkata, India – M.Sc. in Physics – Thesis: The Sunyaev-Zel'dovich Signal from Quasar Host Halos – Advisor: Suchetana Chatterjee	2013-2015
	Presidency College, University of Calcutta - B.Sc (Honors) in Physics - Minor in Mathematics and Chemistry	2010-2013
POSITIONS	Yale University, Astronomy Department - Graduate Research Assistant - Advisors: Frank van den Bosch and Pieter van Dokkum	2018-
	Presidency University, Physics Department - Project Assistant (Junior Research Fellow) - Project Title: Modeling the 21 cm Signal from the Dark Ages - Advisor: Kanan Kumar Datta	2015-2016
AWARDS	 Sheldon Wise Pre-Doctoral Fellowship, Yale University Department of Science and Technology, Government of India Junior Research Fellowship Department of Science and Technology, Government of India INSPIRE scholarship 	2017-2018 2015-2016 2010-2015
	 Lilabati Ray Memorial Prize for Best Student Seminar, Presidency University, Kolkata 	2015
PROFESSIONAL ACTIVITIES	 L – Referee for ApJ – Yale Astronomy Graduate Student Talks SOC Member – Galaxy Lunch Moderator, Yale Astronomy Department 	2019- Spring 2019 2017-2018
TEACHING EXPERIENCE	 Teaching Fellow, Planets and Stars, Yale University Teaching Fellow, Galaxies and the Universe, Yale University 	Spring 2017 Fall 2017, 2019
TUTORING EXPERIENCE	– Private Tutor of High School Physics and Mathematics	2014-2016

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

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
- "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

- "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
- "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

- **COMPUTATIONAL** N-Body simulations with GADGET
 - Fuzzy Dark Matter simulations with GAMER (AMR Code)
 - Programming skills in C, C++, FORTRAN 77, and Python
 - Familiarity with MATLAB and Yt (data analysis and visualisation package)