

Arun Kannawadi

CONTACT	Department of Astrophysical Sciences, Princeton University, 4 Ivy Lane, Princeton, NJ 08544, USA	Website: arunkannawadi.github.io Email(s): arunkannawadi@princeton.edu kannawadi.arun@gmail.com
RESEARCH INTERESTS	Weak gravitational lensing (WL), Galaxy clusters, Mass mapping, Large-scale structure of the Universe, Cosmology with Big Data	
CAREER POSITIONS	Associate Research Scholar Postdoctoral Research Associate Princeton University, Princeton NJ, USA.	October 2021 - present October 2019 - October 2021
	Postdoctoral Researcher Leiden Observatory, Leiden, The Netherlands	September 2016 - September 2019
	MITACS Globalink Research Assistant University of Toronto, Toronto, Canada.	May 2010 - August 2010
	Summer intern, working on μ CLinux Sands India Pvt. Ltd., Chennai, India	May 2009 - August 2009
EDUCATION	<i>Doctorate of Philosophy</i> McWilliams Center for Cosmology Department of Physics, Carnegie Mellon University	May 2013 - August 2016
	<i>Master of Science, Physics</i> Department of Physics, Carnegie Mellon University (CMU)	August 2011 - May 2013
	<i>Bachelor of Technology, Electrical Engineering & Physics</i> Indian Institute of Technology, Madras (IITM) Chennai, India	August 2007 - June 2011
PUBLICATIONS	<i>As of August 4, 2022, I have 42 refereed journal papers and 7 pre-prints on arXiv/astro-ph, several of which are accepted for publication. I have a total of 1824 citations according to SAO/NASA ADS, with an h-index of 17, i.e., 17 papers with 17 or more citations.</i>	
GRANTS, AWARDS & FELLOWSHIPS	LSSTC Enabling Science Award (US\$4k) Pipeline Scientist, LSST Dark Energy Science Collaboration (US\$208k) Co-I for Cycle 28 HST proposal (HST-AR-16138; US\$20k) Several travel supports from LSST DESC Travel funding from Graduate Student Assembly to attend 224 th AAS meeting (US\$1K) The Arnys Clinton Lilly Jr. Fellowship (Graduate fellowship) The Dr. Thane Smith Fellowship (Graduate fellowship) MITACS Scholarship (CA\$8.5k) Travel grant from Office of Alumni Affairs, IITM (15K INR) Scholarship from T.I.M.E covering 4 year tuition at IITM (> 104K INR)	June 2021-2022 October 2020-2023 2020-2022 2015 2014 2012 2012 2010 2010 2007-2011
SOFTWARE DEVELOPMENT	Python, C, C++, Matlab/Octave, Git, L ^A T _E X Co-developed GalSim ¹ , an open source package for realistic galaxy image simulations. Science Pipelines developer, Rubin Observatory Data Management, Maintainer of <code>scholarly</code> ²	

¹ <https://github.com/GalSim-developers/GalSim> ² <https://github.com/scholarly-python-package/scholarly/>

TEACHING & MENTORSHIP	Invited lecturer - Special undergraduate course on Gravitational Lensing ³	
	University of Antioquia, Medellin, Colombia	Summer 2017
	(Developed 20 hours worth of lecture and lab exercises)	
	Research supervisor for a 2 nd year undergrad at Princeton University	January - May 2022
	Research supervisor for a Masters student at Leiden Observatory	October 2018 - July 2019
	LEAPS ⁴ research advisor for undergraduate students	Summer 2017 & 2018
	TA - Summer Academy of Mathematics and Science (SAMS)	Summer-2 2012
	TA - Physics-II for Engineers (33-107)	Summer-1 2012
	TA - Matter and Interactions-II (33-132)	Spring 2012
SELECTED TALKS	TA - Physics-II for Science students (33-112)	Fall 2011, 2012
	Thunch, Dept. of Astrophysical Sciences, Princeton University, Princeton	December 2020
	Plenary talk at the Euclid Consortium meeting, Helsinki, Finland	June 2019
	(c.) Cosmology on Safari, KwaZulu-Natal, South Africa	March 2019
	Stony Brook/Brookhaven National laboratory joint cosmology seminar	January 2019
	HSC meeting, Princeton University, Princeton	January 2019
	Seminar, Raman Research Institute, Bangalore	December 2017
	Seminar, Indian Institute of Astrophysics, Bangalore	December 2017
	Seminar(s), Indian Institute of Technology, Madras	Dec 2017, Jan 2015
PROFESSIONAL ACTIVITIES & OUTREACH	Dark Energy in the Laboratory, Lorentz Center, Leiden	November 2017
	(c.) 228 th meeting, American Astronomical Society (AAS), San Diego	June 2016
	* Invited talks, unless denoted by (c.)	
	Reviewer for DIM Origines PhD/postdoc funding proposal (France)	June 2022
	Editorial board member, Galaxies (ISSN 2075-4434)	August 2020 - August 2021
	Reviewer for MNRAS, AJ, Astronomy & Computing, and several Frontiers and MDPI journals (36 reviews of 20 manuscripts)	July 2015 - present
	Organising team, Astronomy on Tap, Leiden	March 2017 - March 2019
	Public talk, Planetarium of Medellin, Colombia	July 2017
	Public talk, Allegheny Observatory, Pittsburgh	July 2016
LEADERSHIP ROLES	Poster Judge for 228th AAS meeting	June 2016
	Poster Judge for Meeting of the Minds, CMU	May 2016
	Coordinator for Science outreach, National Service Scheme, IITM	Aug 2008 - July 2009
	PSF Working group convener, LSST DESC	June 2021 - present
	Convener of job opportunities outside academia for Astro graduates	June 2020 - present
	<i>Co-Lead</i> , Shape measurement work package, Euclid Consortium	September 2017 - present
	President of Indian Graduate Student Association, CMU	2014
	(nominated for Outstanding Student Organization Leader in 2014; previously served as Vice-President and Treasurer	
	Coordinator - Shaastra Circuit Design Challenge, IITM	January 2010 - October 2010
MEMBERSHIPS	Project Lead, Fertiliser feeder, Spirit of Engineering, IITM	May 2008 - October 2008
	Active member of Euclid Consortium Diversity Committee	June 2018 - September 2021
	Junior member, International Astronomical Union (IAU)	October 2018 - present
	Infrastructure contributor to Kilo-Degree Survey (KiDS)	2016 - present
	Member of the WFIRST Detector requirements team	2014-2016
	Member of LSST Dark Energy Science Collaboration	2013- 2016 & 2019 - present
	Member of Euclid Consortium	2013 - present

³ <https://sites.google.com/site/astrotwincolo/meetings/2017-5th-meeting> ⁴ <http://leaps.strw.leidenuniv.nl/>

SCHOLARLY ACHIEVE- MENTS	All India Rank of 206 (top 0.1 percentile) in IIT-Joint Entrance Examination (JEE)	2007
	All India Rank of 618 and Tamilnadu State Rank of 12 in	
	All India Engineering Entrance Examination (AIEEE)	2007
	All India Rank of 4 in Vellore Institute of Technology Entrance Examination	2007
	First in the district of Chennai on 10 th grade board examinations	2005

POSTERS PRESENTED	Workshop on Weak gravitational lensing, Berkeley	January 2019
	Workshop on Foreground physical effects on LSST WL Science	December 2015
	Innovation with Impact, CMU	April 2015
	224 th meeting, American Astronomical Society (AAS), Boston	June 2014

WORKSHOPS PARTICIPATED	Rubin Observatory algorithms workshop (virtual)	March 2020
	Euclid Consortium meeting, Bonn, Germany	June 2018
	Statistical challenges for LSS in the era of LSST, Oxford, England	April 2018
	Euclid Consortium meeting, London, England	June 2017
	The Bright & Dark Universe, Naples, Italy	January 2017
	LSST Dark Energy Science Collaboration meeting, Sacramento, USA	March 2015
	Wide Field Infra-Red Survey meeting, Pasadena, USA	November 2014
	Santa Fe Cosmology Workshops, 2013 & 2014	July 2013, 2014
	Summer school on Astrostatistics, Pennsylvania State University (PSU), USA	May 2013

REFERENCES

Dr. Robert Lupton

Department of Astrophysical Sciences,
Princeton University,
Peyton Hall, 4 Ivy Lane,
Princeton, NJ 08540, USA
Email: rhl[at]astro.princeton.edu
Tel: +1 609 258 3811

Prof. Catherine Heymans

(Astronomer Royal for Scotland)
The Institute for Astronomy,
University of Edinburgh, Royal Observatory,
Blackford Hill, Edinburgh, EH9 3HJ, UK.
Email: heymans[at]roe.ac.uk
Tel. : +44 131 668 8301

Prof. Dr. Henk Hoekstra

Leiden Observatory,
2333 CA Leiden,
The Netherlands
Email: hoekstra[at]strw.leidenuniv.nl
Tel: +31 (0)71 5275594

Prof. Lance Miller

Dept. of Physics, Oxford University,
Denys Wilkinson Building,
Keble Road, Oxford, OX1 3RH
Email: lance.miller[at]physics.ox.ac.uk
Tel: 01865 (2)73342

Prof. Rachel Mandelbaum

McWilliams Center for Cosmology,
Department of Physics,
Carnegie Mellon University,
Pittsburgh, PA 15213
Email: rmandelb[at]andrew.cmu.edu
Tel: +1 412 268 1714

Prof. Arul Lakshminarayan

Department of Physics,
Indian Institute of Technology Madras,
Chennai, India 600036
Email: arul[at]physics.iitm.ac.in
Tel: +91-44-22574878