

Marcelle Soares-Santos

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EDUCATION	2010 PhD Astrophysics, University of São Paulo, São Paulo, Brazil 2006 MSc Astrophysics, University of São Paulo, São Paulo, Brazil 2004 BSc Physics, Federal University of Espirito Santo, Vitória, Brazil
APPOINTMENTS	BRANDEIS UNIVERSITY 2017– Assistant Professor NORTHWESTERN UNIVERSITY 2016–2017 Adjunct Assistant Professor FERMI NATIONAL ACCELERATOR LABORATORY (FERMILAB) 2014–2017 Associate Scientist 2010–2014 Postdoctoral Research Associate 2008–2010 Graduate Student Research Fellow
RECENT AWARDS (LAST 5 YEARS)	2014 Alvin Tollestrup Award <i>for contributions to the Dark Energy Survey (DES), which span from instrument construction and commissioning to high-level physics analysis.</i> Award made annually by the Universities Research Association (URA) to a postdoctoral researcher from any of Fermilab's collaborating institutions world-wide, \$3k.
GRANTS & TELESCOPE TIME	2016–2017 PI, Chicago-Fermilab Strategic Collaborative Initiatives <i>Cosmology with DES and LIGO/Virgo data</i> , \$75k 2016–2017 PI, NOAO Blanco/DECam telescope time for imaging survey <i>Blanco Images of the Southern Sky (BLISS)</i> , 11.5 nights (corresponding to ~\$10k value per night) 2016–2017 Sponsor of Student Applicants, URA Visiting Scholars Program <i>Antonella Palmese (University College London)</i> , 1yr visit, \$20k <i>Dillon Brout (University of Pennsylvania)</i> , 4×1week visits, \$5k 2014–2016 PI, Fermilab Laboratory Directed Research & Development <i>DES and Gravitational Waves</i> , FNAL-LDRD-2015-010, \$280k
PUBLICATIONS & TALKS	120 papers, 2235 citations, h-index: 24 (full list: bit.do/marcelle-publist) 45 invited seminars, 30 conference talks, 10 invited outreach events 10 articles and interviews featured in media outlets
RESEARCH HIGHLIGHTS	2017– Leading the Blanco Images of the Southern Sky (BLISS) survey, a project to expand sky coverage of the DES Camera to all sky visible from Chile 2016– Leading the second campaign of the DESGW project, which aims at studies of optical signatures of gravitational wave sources

- 2016– Contributing to the first campaign of the DES-IceCube project, which aims at finding counterparts to extragalactic neutrinos
- 2016– Contributing to cross-correlation analysis using CMB maps and DES cluster catalogs
- 2015– Developing a new cluster mass proxy based on stellar masse
Pereira et al. 2017, ApJ, in preparation
Palmese et al. 2017, ApJ, in preparation
- 2015– Convener of the Transients & Moving Objects (TMO) group: 6 analysis teams, ~20 active participants, 8 publications to date
bit.do/tmo-publist
- 2015– Leading analysis of photometric properties of galaxy clusters
Welch et al. 2017, ApJ, in preparation
- 2015–2016 Contributed to the first untriggered search for kilonovae
Doctor et al. 2016, ApJ, 837, 1
- 2015–2016 Contributed to DES science overview article
Abbott et al. 2016, MNRAS, 460, 1270
- 2014–2016 Launched and led the DESGW project, a search program for optical signatures and studies of gravitational wave events; published results of the first observing campaign
Soares-Santos et al. 2016, ApJL, 823, 33
Annis et al. 2016, ApJL, 823, 34
Abbott et al. 2016, ApJL, 826, 13
Cowperthwaite et al. 2016, ApJL, 826, 29
- 2015 Contributed to study of bright central galaxies in clusters
Zhang et al. 2016, ApJ, 816, 98
- 2013–2015 Contributed to study of galaxy cluster richness-mass relation
Saro et al. 2015, MNRAS, 454, 2305
- 2013– Co-authored 70+ papers as DES builder
bit.do/builder-publist
- 2010–2012 Played key role on commissioning of the DES camera (DECam)
Flaugher et al. 2015, AJ, 150, 150
- 2008–2011 Developed Voronoi Tessellation cluster finder algorithm:
Soares-Santos et al. 2011, ApJ, 727, 45

LEADERSHIP
HIGHLIGHTS

- 2016–2017 American Astronomical Society Early Career Advisory Board
- 2016–2018 Fermilab Scientific Advisory Committee
- 2015– DES Science Committee, Transients & Moving Objects Group Convener
- 2014–2017 DES Executive Committee, Operations Team
- 2013–2017 American Physical Society Division of Particles and Fields Meeting
2013 Early Career Scientists Panel Organizer
2017 Member of the Organizing Committee
- 2013–2015 Fermilab Users' Executive Committee, Elected Member
- 2012– Reviewer
Journal Articles: MNRAS, APJ, Astronomy and Computing
Grant Proposals: IUSSTF, Templeton Foundation, NASA/NIAC
Time Allocation Committee: NOAO ad-hoc for DECam
- 2011–2013 DES Data Management Requirements Verification Task Force