

# Lea Marcotulli

astrophysicist



## about

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## languages

trilingual  
italian/french/english  
spanish notions

## astro-software

HEASOFT, XSPEC  
DS9, TopCAT  
fermipy, CIAO  
SpeXtools

## programming

Python  
 $\text{\LaTeX}$ , Bash  
Fortran 90 & HTML5

## interests

blazars, AGN, black holes, populations study, high-energy astrophysics, X-ray,  $\gamma$ -ray, radiative processes, modeling, FSRQs, BL Lacs, outreach

## education

2017–present	<b>Ph.D.</b> candidate in Physics and Astronomy <i>Supermassive black holes at the dawn of the Universe</i> <u>Advisor:</u> professor M. Ajello	Clemson University
2015–2017	<b>M.Sc.</b> in Physics and Astronomy <i>High-redshift blazars through NuSTAR eyes</i> <u>Advisor:</u> professor M. Ajello	Clemson University
2012–2015	<b>B.Sc. (110/110)</b> <i>Teorema del Viriale (The virial theorem)</i> <u>Advisor:</u> professor D. Dalla Casa	Univeritá di Bologna

## publications

**First Author: 3; Total number of citation: 11;  $h$ -index: 6**

May 2020	<i>Source-count Distribution of Gamma-Ray Blazars</i>	ApJ
Jan. 2020	<i>NuSTAR perspective on high-redshift MeV blazars</i>	ApJ
March 2017	<i>High-redshift blazars through nustar eyes</i>	ApJ

**Contributed publications: 14, Total number of citation: 87**

## awarded research fundings

**Total: \$ 156k**

2020	<b><i>NuSTAR proposal 6248, \$74k</i></b>
2019	<b><i>NuSTAR proposal 5193, \$70k</i></b>
2019	<b><i>Graduate Student Travel Award, \$750</i></b>
2018	<b><i>NuSTAR proposal 4301, \$10k</i></b>
2018	<b><i>Graduate Student Travel Award, \$750</i></b>

## awarded observing time

**Total: 2.5 nights+50 hrs+410 ks**

2020	NASA Infrared Telescope Facility (IRFT) <b>proposal 2020B113, 16 hrs</b> <i>Chasing supermassive black holes at the dawn of the Universe</i>
2020	Keck-OSIRIS/LRIS/NRIS, <b>2.5 nights</b> <i>How are jet triggered in <math>\gamma</math>-NLSys?</i>
2020	<b>NuSTAR proposal 6248, 50 ks</b> <i>Chasing the most powerful blazars</i>
2020	NASA Infrared Telescope Facility (IRFT) <b>proposal 2020A093, 34 hrs</b> <i>Chasing supermassive black holes at the dawn of the Universe</i>
2019	<b>XMM-Newton proposal 86233, 116 ks</b> <i>Characterizing the most powerful blazars at the dawn of the Universe</i>
2019	<b>NuSTAR proposal 5193, 61 ks</b> <i>Chasing the most powerful blazars</i>
2018	<b>NuSTAR proposal 4301, 63 ks</b> <i>Chasing the most powerful blazars</i>

## referee contribution

1	<b>Astrophysical Journal (ApJ)</b>
1	Internal referee for the <i>Fermi-LAT</i> Collaboration

## collaboration membership

2019-present **BASS Collaboration**  
2016-present *Fermi-LAT* Collaboration

## outreach

In progress	<b>YouTube Channel</b> <i>Astropills with Lea</i>	
March 2020	<b>TedX Greenville</b> <i>The biggest baddest black holes</i>	
Feb. 2019	<b>Science Fair Volunteer Judge</b>	Clemson Elementary School
Feb. 2018	<b>College of Science Donors' dinner</b>	Clemson University
Feb. 2018	<b>Clemson Science Day for Elementary Schools</b>	Clemson University
May 2017	<b>Eclipse over Clemson</b>	Clemson Child Development Center
2016-2017	<b>Planetarium Shows</b>	Clemson University

## leadership

2017-2018	<b>President of Physics and Astronomy graduate student organization (PandAGSO)</b>	Clemson University
2016-2017	<b>Vicepresident of PandAGSO</b>	Clemson University

## organizer

March 2019	<b>Meeting of Astronomers in South Carolina (MASC)</b>	Clemson University
Oct. 2018	<b>Time Domain Astrophysics with Swift</b>	Clemson University
2018-2019	<b>Astrophysics seminar: Local Group (LG) meeting</b>	Clemson University
Aug. 2018	<b>Symposium for the Introduction to Research in Physics &amp; Astronomy (SIRPA)</b>	Clemson University

## mentoring

2020-present	<b>Co-advisor of undergraduate student Adam Vendrasco</b>	Clemson University
2019-present	<b>Mentor of graduate student Ross Silver</b>	Clemson University
2018-present	<b>Mentor of graduate student Meenakshi Rajagopal</b> <i>NuSTAR Observations and multi-wavelength modeling of the high-redshift BL Lac Object 4FGL J2146.5-1344</i>	Clemson University
2016-2017	<b>Mentor of graduate student Xiurui Zhao</b> <i>Compton-Thick AGN IN THE NuSTAR ERA II</i>	Clemson University
2016	<b>Mentor of undergraduate student Luke Tremblay</b> <i>Chandra and NuSTAR follow-up observations of Swift-BAT selected AGN</i>	Clemson University

## invited talks

Jan. 2020	<b>Galaxy Lunch</b>	Yale University
Nov. 2019	<b>KIPAC Tea Talk</b>	Stanford University
Oct. 2019	<b>Seminar Talk</b>	UMBC
Apr. 2017	<b>KIPAC Tea Talk</b>	Stanford University

## visitor scientist positions

1-31 Oct. 2019	<b>NASA Goddard Science Space Center</b>	Washington D.C.
1-21 July 2017	<b>Stanford University</b>	Stanford, CA
14-21 Apr. 2017	<b>Stanford University</b>	Stanford, CA

## press releases

Sept. 2020	<b>2020:Brain Candy-Virtual TEDx</b>	Clemson NEWSSTAND
Jan. 2020	<b>2020:Brain Candy</b>	TedX Greenville
Nov. 2019	<b>Hubble constant in <math>\gamma</math>-rays</b>	Media INAF
Nov. 2019	<b>How quickly is the Universe expanding</b>	Clemson Newsstand
March 2017	<b>5 early universe <math>\gamma</math>-ray blazars</b>	Greenville Journal
Feb. 2017	<b>The most power-packed galaxies</b>	Clemson Newsstand

## conferences

### Contributed talks: 8

Jan. 2020	<b>AAS 2020</b>	Honolulu, HI
Oct. 2019	<b>AMEGO Workshop</b>	Washington DC, DC
Aug. 2019	<b>SIRPA</b>	Clemson University, SC
March 2019	<b>MASC</b>	Clemson University, SC
Oct. 2018	<b>VIII Fermi Symposium</b>	Baltimore, MD
March 2018	<b>MASC</b>	USC, SC
Oct. 2017	<b>VII Fermi Symposium</b>	Garmisch-Partenkirchen, Germany
March 2017	<b>MASC</b>	Furman University, SC

### Contributed Poster: 1

Aug. 2017	<b>HEAD meeting</b>	Sun Valley, ID
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## teaching

Fall 2019	<b>Guest Lecturer</b> Undergraduate Introduction to Astronomy (ASTR1010)	Clemson University
Fall 2018	<b>Guest Lecturer</b> Undergraduate Stellar Astrophysics (ASTR3020)	Clemson University
Spring 2017	<b>Teaching assistant</b> Astrophysics laboratory (ASTR1030)	Clemson University
Fall 2016	<b>Teaching assistant</b> Astrophysics laboratory (ASTR1040)	Clemson University
Spring 2016	<b>Teaching assistant</b> Physics laboratory (PHYS2010)	Clemson University
Spring 2016	<b>Guest Lecturer</b> Undergraduate Galactic Astronomy (ASTR3030)	Clemson University
Fall 2015	<b>Teaching assistant</b> Physics laboratory (PHYS2090)	Clemson University