LeaMarcotulli

astrophysicist

about

Yale University
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USA
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citizenship

italian/french

languages

italian/french/english
spanish notions

facilities

Fermi-LAT
NuSTAR, XMM
Swift-XRT, Chandra
Keck-LRIS
Keck-OSIRIS
NASA-IRTF

astro-software

HEASOFT, XSPEC
DS9, TopCAT
fermipy, CIAO
SpeXtools, IRAF
PypeIt

interests

blazars, AGNs, black holes, populations study, γ-NLSys, high-energy astrophysics, radiative processes, SED modeling, jets, outreach

appointments

2021-pres **NASA Hubble Fellowship (NHFP) Einstein Fellow** — Yale University

education

2017-2021 **Ph.D.** in Physics — Clemson University
Chasing supermassive black holes at the dawn of the Universe
Advisor: professor M. Ajello

2015-2017 **M.Sc.** in Physics — Clemson University
High-redshift blazars through NuSTAR eyes
Advisor: professor M. Ajello

2012-2015 **B.Sc.** in Astrophysics (110/110) — Universitá di Astronomia, Bologna
Teorema del Viriale (*The virial theorem*)

honors and awards

2021 **NASA Hubble Fellowship**, $391k — NASA
2020 Outstanding Graduate in Engagement Award, $1k — CoS, Clemson University

outreach

2023 Astro on Tap — New Haven
2022- pres. **Skype a Scientist** — Virtual
2022 **GAINS** - *Girls Advancing in STEM conference 2022* — Virtual
2021- pres. **YouTube Channel** - *(On) Planet Nine*
2020 **TEDx-Greenville** - *The biggest baddest black holes* — Virtual
3 Minute Thesis Competition — Clemson Graduate School
2019 Science Fair Volunteer Judge — Clemson Elementary School
2018 College of Science Donors' dinner — Clemson University
Clemson Science Day for Elementary Schools — Clemson University
2017 Eclipse over Clemson — Clemson Child Development Center
2016-2017 Planetarium Shows — Clemson University

publications

Total: first author - 6; co-author - 18; h-index - 12; ADS
First author:

2022 *Shock waves spark blazing light from black holes* — Nature, Vol. 611, Issue 7937
2022 *BASS. XXXIII. Swift-BAT Blazars and Their Jets through Cosmic Time* — ApJ, Vol. 940, Id. 77
2022 *Bridging the gap - Fermi-LAT sources at 20-200 MeV* — 37th ICRC Proc.
2020 *Source-count Distribution of Gamma-Ray Blazars* — ApJ, Vol. 896, Id. 6
2020 *NuSTAR Perspective on High-redshift MeV Blazars* — ApJ, Vol. 889, Id. 164
2017 *High-redshift blazars through NuSTAR eyes* — ApJ, Vol. 839, Id. 96

awarded research fundings

Total as PI: $ 441k

2023	*NuSTAR* proposal 9259	$72k
2022	*NuSTAR* proposal 8196	$123k
2021	*Fermi-LAT* proposal 141104	$75k
2020	*NuSTAR* proposal 6248	$74k
2019	*NuSTAR* proposal 5193	$70k
	XMM-Newton proposal 86233	$15k
	Graduate Student Travel Award	$750
2018	*NuSTAR* proposal 4301	$10k
	Graduate Student Travel Award	$750

awarded observing time

Total as PI: X-ray - 879 ks; IR - 8.5 nights; optical - 3 night

2023	*NuSTAR* proposal 9259	80 ks
	Swift ToOs 18444, 18503	14 ks
2022	*NuSTAR*, proposal 8196	400 ks
	Swift ToOs 17331, 17458, 17649, 17893, 17895, 18114	43 ks
2021	*Swift* ToOs 15279	4 ks
	Keck-LRIS, 2022A semester	1 night
	Keck-LRIS, 2021B semester	1 night
	Palomar, 2022A semester	3 nights
2020	*NuSTAR* proposal 6248	50 ks
	Swift ToOs 14716	4 ks
	Keck-LRIS, 2021A semester	1 night
	Keck-OSIRIS, 2020B semester	1 night
	NASA IRFT proposals: 2020A093,2020B113	4.5 nights
2019	*NuSTAR* proposal 5193	61 ks
	XMM-Newton proposal 86233	116 ks
	Swift ToOs 12513, 13013	8 ks
2018	*NuSTAR* proposal 4301	63 ks
	Swift ToOs 10914, 11154	8 ks

press releases

2022	(On) Planet Nine	Clemson Newsstand
2021	2021 NASA Hubble Fellowship	NASA
	Clemson student receive prestigeous NHFP	Clemson Newsstand
	Women in STEM	Clemson Newsstand
2020	2020:Brain Candy-Virtual TEDx	Clemson Newsstand
	2020:Brain Candy	TEDx-Greenville
2019	Hubble costant in γ-rays	Media INAF
	How quickly is the Universe expanding	Clemson Newsstand
2017	Five early universe γ-ray blazars	Greenville Journal
	The most power-packed galaxies	Clemson Newsstand

DEI efforts

2023-pres	**COSI DEI working group**	Co-organizer
2022-pres	**NHFP DEI committee**	Co-organizer
2023-pres	**Astronomers for Planet Earth**	Member
2023-pres	**IDEEA**	Member

meeting organized

2023	**Yale colloquia**	New Haven, CT
	NHFP symposium	Boston, MA
2022	NHFP symposium	Baltimore, MD
2021-2022	BLAST Workshop I & II	Virtual
2020-2021	MOSCA Meeting	Virtual
2019	Meeting of Astronomers in South Carolina (MASC)	Clemson University
2018	Time Domain Astrophysics with Swift	Clemson University
	Astrophysics seminar: Local Group (LG) meeting	Clemson University
	SIRPA	Clemson University

invited talks

Total: 16
Most recent contributions

2023	Astrophysics Seminar	IA-Forth, Crete
	High Energy Astrophysics Seminar	APC, Paris
	Quasar Tea Talk	CfA, Harvard & Smithsonian
	Astrophysics Seminar	Washington University, St. Louis
2022	HEA Seminar	CfA, Harvard & Smithsonian
	LG Seminar	Clemson University
	THEA Seminar	Columbia University
	Astro Seminar, CCPP	NYU
2021	BLAST workshop	Virtual
	Seminar, University of Würzburg	Virtual
	COSI Journal Club	Virtual
	IRA-OAS seminar	Virtual, Bologna University
	CCAPP seminar	Virtual, Ohio State University
	237th AAS Splinter Session - MeV Astronomy	Virtual

collaboration membership

2022-pres. HEX-P Collaboration
2022-pres. COSI Collaboration
2020-pres. AMEGO & AMEGO-X Collaborations
2019-pres. BASS Collaboration
2016-pres. *Fermi*-LAT Collaboration

referee contribution

1	Nature Astronomy
1	Nature
1	Publication of the Astronomical Society of Japan (PASJ)
1	Monthly Notices of the Royal Astronomical Society (MNRAS)
2	Astrophysical Journal (ApJ)
1	Internal referee for the *Fermi*-LAT Collaboration

panel reviews

1	HST
1	Yale internal TAC

mentoring

Graduate Students:

2023-pres. Mentor of graduate student Garima Rajguru
2022-pres. Mentor of graduate student Scott Joffre
2019-2020 Mentor of graduate student Ross Silver — ApJ, Vol. 902, Id. 23
2018-2019 Mentor of graduate student Meenakshi Rajagopal — ApJ, Vol. 889, Id. 102
2016-2017 Mentor of graduate student Xiurui Zhao — ApJ, Vol. 870, Id. 60

Undergraduate Students:

2023 Co-advisor of Sean Lewis
2022 Co-advisor of Kiera Spall, Carissma McGee
2020-2021 Co-advisor of Adam Vendrasco
2016 Mentor of undergraduate student Luke Tremblay — ApJ, Vol. 848, Id. 53

visiting scientist positions

2023 Washigton University — St. Louis, MO
2019 NASA Goddard Science Space Center — Washington, D.C.
2017 Stanford University — Stanford, CA

leadership

2022-pres **HEX-P Blazar science group coordinator**
2017-2018 President — Physics & Astronomy Graduate Student Organization
2016-2017 Vicepresident — Physics & Astronomy Graduate Student Organization

conferences

Contributed talks: 23; Contributed Poster: 5; Session Chair:2
Most recent contributions:

2023 The X-ray Universe — Greece
12th HEAD Meeting (Poster) — USA
2022 375 IAU: The Multimessenger Chakra of Blazar Jets — Nepal
10th International Fermi Symposium — South Africa
Gamma 2022 — Spain
NuSTAR 2022 — Italy
AAS 240 — USA
NERQUAM (Poster) — USA
10th HEAD Meeting (Poster) — USA
2021 NHFP symposium — Virtual
Fermi Collaboration Meeting — Virtual
ICRC 2021 — Virtual
APS April Meeting — Virtual
237th AAS - *Dissertation Talk and Session Chair* — Virtual

teaching

2023 Certificate of College Teaching Preparation — Yale University
2016-2019 Guest Lecturer - ASTR3030; ASTR3020; ASTR1010 — Clemson University
2016-2017 Teaching assistant - Astro. Lab. ASTR1030; ASTR1040 — Clemson University
2015-2016 Teaching assistant - Physics Lab. PHYS2100; PHYS2090 — Clemson University