

# IMRE BARTOS

Associate Professor of Physics | University of Florida | [people.clas.ufl.edu/imrebartos](http://people.clas.ufl.edu/imrebartos)

## RESEARCH INTEREST

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Gravitational wave astrophysics, multi-messenger astrophysics, high-energy astroparticle physics, black holes, neutron stars, cosmology, nucleosynthesis.

## EDUCATION AND TRAINING

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Columbia University	Physics	PhD	2012
Eotvos University, Hungary	Physics	Diploma	2006

## PROFESSIONAL APPOINTMENTS

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Associate Professor	University of Florida	2021—present
Assistant Professor	University of Florida	2017—2021
Associate Research Scientist	Columbia University	2016—2017
Lecturer in Discipline	Columbia University	2012—2016

## TEACHING

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Electromagnetic Theory 2	(graduate)	Spring 2023, Spring 2024
Applied Physics 1	(undergraduate)	Fall 2023
Physics with Calculus 2	(undergraduate, 600+ students)	Spring2021, Fall2021, Spring2022, Fall2022
Modern Astrophysics	(undergraduate, self-developed)	Fall 2018, Fall 2019, Fall 2020
Modern Astrophysics	(graduate, self-developed)	Spring 2018, Spring 2020
Enriched Modern Physics	(honors undergrad)	Spring 2019
Frontiers of Science	(core course at Columbia)	2012 – 2016 (7 semesters)

## HONORS AND AWARDS

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Innovation Award (\$50k), UF Innovate	2024
International Educator of the Year, University of Florida International Center	2022
Alfred P. Sloan Foundation Research Fellowship	2020
Excellence Award for Assistant Professors, University of Florida	2020
Allan M. Sachs Teaching Award	2011
Columbia Presidential Teaching Award, Finalist	2012
Columbia Science Fellow, Columbia University	2012—2016
National Science Foundation Highlights	2014
AAS Nova Highlight	2016
5 Favorite Features of the year, Physics World	2018
Brookhaven National Lab Distinguished Lecture	2016
Rising Stars of Science: The Forbes 30 Under 30 (Forbes Magazine)	2012
Caltech SURF Fellow	2004
<u>As a member of the LIGO Scientific Collaboration:</u>	
Special Breakthrough Prize in Fundamental Physics	2016
Gruber Cosmology Prize	2016
Princess of Asturias Award for Technical and Scientific Research	2017
Einstein Medal from the Einstein Society in Bern, Switzerland	2017
Bruno Rossi Prize	2017
Science's Breakthrough of the Year	2016 & 2017
IOP Physics World Breakthrough of the Year	2016 & 2017
UK RAS Group Achievement Award in Astronomy	2017

## SCIENTIFIC LEADERSHIP

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Chair	LIGO/Virgo/KAGRA Binary Black Hole Working Group	2019—2021, 2023—
Executive Committee	American Astronomical Society (AAS) Laboratory Astrophysics Division	2024—
Associate Member	Commission on Astroparticle Physics (C4), IUPAP	2019—
Moderator	arXiv Popular Physics	2014—
Sci. Advisory Council	Hope Funds for Cancer Research	2016—
Chair	Alerts, Particle Counterparts subgroup (MMMBA), LISA Consortium	2019—2024
Chair	High-frequency GW subgroup (MMMBA), LISA Consortium	2019—2024
Coordinator	LISA Alert Definitions	2022—2024
Co-Chair	Eccentric Task Force, LIGO/Virgo/KAGRA	2023
Chair	LIGO/Virgo Grav.-wave and high-energy neutrino Working Group	2012—2020
Board of Trustees	Hope Funds for Cancer Research	2016—2018
President	New York Hungarian Scientific Society	2017—2018
Vice President	New York Hungarian Scientific Society	2015—2016
Member	Hungarian Science Abroad Presidential Committee	2017—2019
Sci. Research Mentor	American Museum of Natural History	2016—2017
Executive Committee	Frontiers of Science, Columbia University	2013—2016
Consultant	Columbia Core Science Committee	2014—2015
Co-Organizer	IceCube collaboration meeting, Columbia—Stony Brook	2016
Co-Organizer	LSST detection of optical counterparts of gravitational waves, Columbia	2017
Organizer	AAS Winter Meeting Special Session, MMA with LIGO	2018
Certificate	Multicultural Mentoring, University of Florida	2022
Faculty Mentor	Ronald E. McNair Scholars Program	2022
Member	LIGO Scientific Collaboration	2008—
Member	IceCube-Gen2 Collaboration	2012—
Member	LISA Consortium	2018—
Member	Cosmic Explorer Consortium	2020—

## RESEARCH SUPPORT

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PI	UF Division of Sponsored Research, <b>\$175,000</b> , 8/2024—8/2026.
PI	NASA I-Corps Pilot, N4-WTMC24-0002: Suspended Autonomous Fire Extinguisher (SAFE), 4/2024
PI	UF Division of Sponsored Research, <b>\$83,000</b> , 12/2023—7/2024.
PI	NSF Research Grant, 2309024: Uncovering the Origin of Black Hole Mergers using Orbital Eccentricity, <b>\$169,520</b> , 7/2023—6/2026.
PI	NSF Research Grant, 2207661: Eccentric Black Hole Mergers: Search and Interpretation with Gravitational Waves, <b>\$50,000</b> , 7/2022—6/2024.
Co-PI	NSF Research Grant, 2110060: Searches for Gravitational Wave Transients: Data Analysis for Advanced LIGO and A+ LIGO, <b>\$660,000</b> , 9/2021—8/2024. PI: Sergey Klimenko. + NSF AGEP Supplement, <b>\$59,999</b> , 9/2022—8/2024.
PI	Alfred P. Sloan Foundation Research Fellowship, <b>\$75,000</b> , 9/2020—8/2024. No Co-PI.
PI	NSF Research Grant, 1911796: WOU-MMA: Shedding New Light on Buried Cosmic Accelerators with Gravitational Waves and High-Energy Neutrinos, <b>\$150,000</b> , 6/2019—5/2024 + NSF AGEP Supplement, <b>\$29,200</b> , 6/2022—5/2024.
Co-PI	NSF RAISE Grant, 1740391: RAISE: Deep Gravitational Wave Exploration, Instrumental Insights and Noise Removal Through Machine Learning, <b>\$1,000,000</b> , 7/2017—6/2022. PI: Szabi Marka.
Co-PI	NSF Research Grant, 1708028: Understanding Discoveries, Maximizing Science and Enabling the Best Data of Advanced LIGO During the Regular Detection Era, <b>\$300,000</b> , 7/2017—6/2020. PI: Szabi Marka.
Co-PI	NSF Research Grant, 1404462: Maximizing the Early-Detection Science of Advanced LIGO, <b>\$480,000</b> , 6/2014—9/2017. PI: Szabi Marka.

## TELESCOPE TIME

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- Co-PI NASA NuSTAR Observing Award, 10049: Testing the Connection between Neutrino and Hard X-ray Emission in AGNs, 6/2024-5/2025. PI Santiago Del Palacio (60 ksec observing time allocation on NuSTAR).
- Co-PI Karl Jansky Very Large Array Observing Award, VLA/24A-093: Radio follow-up of candidate kilonova flares from nearby binary NS mergers. PI Avery Eddins. 5/2024—9/2024 (16 hours of telescope time on the Karl G. Jansky Very Large Array).
- PI Karl Jansky Very Large Array Observing Award, VLA/20A-239: Radio remnants of nearby off-axis Gamma-Ray Bursts, 5/2020—9/2020. (18 hours of telescope time on the Karl G. Jansky Very Large Array radio telescope array). Co-PI: Alessandra Corsi, Szabi Marka, Kyung-Hwan Lee.
- Co-PI Swift Observing Award, Cycle 15: Searching for X-ray and UV/O counterparts of gravitational-wave and high-energy neutrino coincident signals with Swift, **\$39,600**, 2019. PI: Azedeh Keivani. (54 ksec observing time on the Swift satellite).
- PI Karl Jansky Very Large Array Observing Award, VLA/19A-184: Radio remnants of nearby off-axis Gamma-Ray Bursts, 16 hours of telescope time, 5/2019—9/2019. (16 hours of telescope time on the Karl G. Jansky Very Large Array radio telescope array). Co-PI: Alessandra Corsi, Szabi Marka, Kyung-Hwan Lee.

## UNIVERSITY SERVICE

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Senator	Faculty Senate, University of Florida (UF)	2018—
Chair	Colloquium Committee, Physics (UF)	2022—
Faculty Advisor	Society of Physics Students ( <i>Outstanding Chapter x 4</i> )	2019—
Faculty Mentor	Ronald E. McNair Scholars Program	2022—2024
Member	CLAS Faculty Council (UF)	2022—
Member	CLAS Research Advisory Committee (UF)	2022—
Advisor	Undergraduate Advisory Committee, Physics (UF)	2021—2022
Member	Departmental Advisory Committee, Physics (UF)	2021—2022
Member	Graduate Recruitment and Admission, Physics (UF)	2017—2022
Member	Artificial Intelligence Committee, Physics (UF)	2020—
Member	Faculty Search Committee (6x) (UF)	2017—

## PROFESSIONAL SERVICE

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- Referee: Nature, Nature Astronomy, Nature Communications, Rev. Mod. Phys., PRL, PRX, PRD, ApJ Lett, ApJ, MNRAS, CQG, GRG, Exp. Astron., JCAP, Eur. J. Phys., New J. Phys., A&A, Geology, Science Advances.
- Reviewed for: NSF, NASA, DOE, DFG (Germany), BSF (U.S.–Israel), NSERC (Canada), SNSF (Switzerland), NCN (Poland), JSPS (Japan), NSFC-ISF (China-Israel), Swedish Research Council, NWO (Netherlands), MTA (Hungary), Belgium, Hope Funds.

## INVITED TALKS AND LECTURES

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Keynote presentations: Neutrino 2016, London, UK, 2016; 23rd Symposium of Astroparticle Physics in the Netherlands, March 2018; Keynote, ASTERICS Conference, Groningen, March 2019; 36th ICRC, July 2019, Spring Meeting of the German Physical Society 2025.

Colloquia: Brookhaven National Lab (2015); Eotvos U. (2016); New York U. (2016), Columbia Physics (2016); Columbia Astronomy (2016); Vanderbilt (2016); Brookhaven National Lab (2016); Stevens Institute of Technology (2016); Stockholm U., Sweden (2016); Uppsala U., Sweden (2016); U. of Delaware (2016); New York U. (2017); U. of Virginia (2018); Northern Illinois U. (2020); Max Planck Institute for Physics (2020), Penn State (2020), Columbia (2021); RIT (Distinguished Speech, 2022), U. Hamburg (2023), U. Bochum (2024).

Selected other invited talks (out of 100+ total): Princeton (2015); Baruch College (2016); CUNY-LaGuardia (2016); RICAP Italy (2016); Harvard (2016); Tsinghua University (2017); MANTS Marseille France (2017); Harvard (2017); Miami 2017; Neutrino 2018; CRIS Sicily (2018); Miami 2018; APC Paris France (2019); Rencontres de Blois, France (2019); SESAPS (2019); AAS (2021); AMNH (2022); Neutrino 2022, WE-Heraeus-Seminar Germany (2022), Davos World Economic Forum (2024).

## **MEDIA**

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100+ news articles on individual research, including the BBC (British), PBS, Scientific American, Daily Mail, ABC (Australian), National Post (Canadian), Zeit Wissen (German), ATV television (Hungarian), TEDx, Physics World (featured among 5 best in 2018), Nature Research Highlight, Quanta and others.

## **OUTREACH**

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Selected invited outreach lectures and speeches: Westport Astronomical Society (2015); Hope Funds (2016); Chelsea Music Festival (2016); Bronx High School of Science (2016); Chemistry and Physics Teachers Clubs (2016); Lake Louise Winter Institute winter school (2017); Engineer's Week U. Florida (2018); Pontecorvo Neutrino School, Romania (2019); Astroparticle School Erlangen, Germany (2019), TEDX (2020).

Research mentor for students from underserved high schools at AMNH for one year. One of students won a Future Leaders Scholarship at Stanford, another got accepted to Columbia summer school.

McNair Faculty Mentor: research and career mentorship of low-income/first-generation and underrepresented minority students in the pursuit of graduate education through the McNair Postbac. Achievement Program.

Certificate in Multi-cultural mentoring: training in best mentoring practices of students with diverse backgrounds.

International Educator of the Year 2022: Outstanding contributions to the internationalization of the University of Florida and the impact of those contributions on students, international partners, and university stakeholders.