

José Luis Bernal

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RESEARCH INTERESTS Cosmology: large-scale structure, line-intensity mapping, dark matter, Hubble constant tension, agnostic modeling and data analysis, neutrino cosmology, primordial non-Gaussianity, blinding methods in cosmology.

PROFESSIONAL CAREER Johns Hopkins University, Davis Postdoctoral Fellowship Oct 2019 – present
Department of Physics and Astronomy

University of Barcelona, FPI fellow PhD Candidate Sept 2015 – Sept 2019
Quantum Physics and Astrophysics Department, Institute of Cosmos Sciences

EDUCATION Ph.D. in Physics, University of Barcelona Sept 2019
PhD Thesis: *Cosmology on the edge of Λ CDM*, (excellent *Summa Cum Laude*)
Advisor: Licia Verde

M.Sc. in Theoretical Physics, Universidad Autónoma de Madrid Jun 2015
Master Thesis: *A consistency test of General Relativity using Expansion History and Growth of Structures*
Advisors: Licia Verde, Antonio J. Cuesta, Alexander Knebe

Bachelor Degree in Physics with honors, Universidad Autónoma de Madrid June 2014

HONORS & AWARDS Second Prize of the XXV Prize ‘Claustre de Doctors’ of the University of Barcelona 2021
Doctoral Extraordinary Prize at the University of Barcelona, class 2018-2019 2021
Spanish Astronomy Society Thesis Prize to the best Doctoral Thesis in A&A 2020
Allan C. and Dorothy H. Davis Postdoctoral Fellowship, JHU 2019
FPI Fellowship for the formation of doctors, Spanish MINECO 2015
Postgraduate Fellowship to study the Master in Theoretical Physics, UAM+CSIC 2014
Extraordinary Prize for the Best Academic Record of Physics 2014 Class, UAM 2014
Excellent Fellowship, Madrid regional Government 2013, 2012, 2011, 2010

TEACHING Teaching Assistant at the University of Barcelona
Astronomy Spring 2017
Ordinary Differential Equations and Vector Calculus Spring 2017, Spring 2018

PEER REVIEW Astrophysics and cosmology journals, including:
ApJ, JCAP, A&A, PDU, EPJC, Universe, IJMPD
External reviewer:
Universidad Computense de Madrid’s program ‘Ayudas para la realización de proyectos I+D para jóvenes doctores’ 2022
External reviewer for NASA’s FINESST program 2020, 2021, 2022

MENTORING	Graduate students: Gabriela Sato-Polito (3 publications), Hector A. Cruz; current graduate students at JHU Katie Short (2 publication); current graduate student at ICC-UB	
PUBLICATION METRICS	31 refereed journal publications (14 first-authored), 1600+ citations, h -index=18 6 additional articles submitted (3 to PRL, 2 to PRD, and 1 to JCAP).	
OUTREACH	Round table about dark matter for the “Dark Matter Day”	2018
	At what speed does the Universe expands? - Invited talk, Sabadell Astronomy Group	2018
	Unravelling the dark Universe - Exhibition about cosmology, gravity and black holes	2017
	Physics Experiments - UB (demonstrations for High school students)	2016, 2017, 2018
	Walk on the Dark Side - Invited talk for Physics bachelor students	2016
	Physis - UB (demonstrations for High school students)	2016
PROFESSIONAL ACTIVITIES	Member of the SKA Cosmology group and Graviational Waves group	2018 - present
	Member of the Australian SKA Pathfinder (ASKAP) Cosmology group	2018 - present
	Postdoc representative in the “Joint JHU/STScI Colloquium Committee”	2021 - 2022
	Founder and coordinator of “Physics and Astronomy Postdocs and Research Scientists” association at JHU	2020 - 2022
	Organizer of the “Particle theory seminars” at JHU	2020 - 2022
	Founder and organizer of the “PhD & Science” meetings at the ICCUB	2018 - 2019
	LOC member in “Venice Cosmology Workshop 2018: The Island”	2018
VISITING RESEARCH	Department of Physics and Astronomy, JHU (funded by María de Maeztu)	April 2018
	Institute for Astronomy, University of Edinburgh (funded by ICCUB)	October 2017
	Radcliffe Institute of Advanced Study, Harvard (funded by FPI fellowship)	April - June 2016
REFERENCES	<u>Marc Kamionkowski</u> Johns Hopkins University (+1) 410-516-0373 kamion@jhu.edu	<u>Licia Verde</u> Institute of Cosmos Sciences (ICC-UB) (+34) 934031328 liciaverde@icc.ub.edu
	<u>Ely D. Kovetz</u> Ben-Gurion University (+972) 545-953349 kovetz@bgu.ac.il	<u>Alvise Raccanelli</u> University of Padova (+39) 0498277113 alvise.raccanelli.1@unipd.it