

# 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      Institute of Physics of Cantabria (IFCA), Ramón y Cajal Fellow      Jan 2023 – present  
University of Cantabria

Max Planck Institute for Astrophysics, Postdoctoral research fellow      Oct 2022 – present

Johns Hopkins University, Davis Postdoctoral Fellowship      Oct 2019 – Sept 2022  
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  $\Lambda$ 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      Ramón y Cajal fellowship, Spanish ‘Agencia Estatal de Investigación’      2022  
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	<p>Astrophysics and cosmology journals, including: ApJ, JCAP, A&amp;A, MNRAS, PDU, EPJC, Universe, IJMPD</p> <p>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</p>				
MENTORING	<p>Graduate students:  Gabriela Sato-Polito (4 publications), Hector A. Cruz; current graduate students at JHU  Katie Short (2 publication); current graduate student at ICC-UB</p>				
PUBLICATION METRICS	<p>34 refereed journal publications (15 first-authored), 1700+ citations, <math>h</math>-index=18  4 additional articles submitted (2 to PRL, 1 to MNRAS, and 1 to JCAP).</p>				
OUTREACH	<p>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</p>				
PROFESSIONAL ACTIVITIES	<p>Member of the HETDEX collaboration 2022 - present  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 &amp; Science" meetings at the ICCUB 2018 - 2019  LOC member in "Venice Cosmology Workshop 2018: The Island" 2018</p>				
VISITING RESEARCH	<p>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</p>				
REFERENCES	<table> <tr> <td> <u>Marc Kamionkowski</u>  Johns Hopkins University  (+1) 410-516-0373  kamion@jhu.edu </td> <td> <u>Licia Verde</u>  Institute of Cosmos Sciences (ICC-UB)  (+34) 934031328  liciaverde@icc.ub.edu </td> </tr> <tr> <td> <u>Ely D. Kovetz</u>  Ben-Gurion University  (+972) 545-953349  kovetz@bgu.ac.il </td> <td> <u>Alvise Raccanelli</u>  University of Padova  (+39) 0498277113  alvise.raccanelli.1@unipd.it </td> </tr> </table>	<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
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