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Publications

- ‘*Sgoldstino Inflation.*’ Ana Achúcarro, Sander Mooij, Pablo Ortiz and Marieke Postma. *JCAP* **1208** (2012) 013, [arXiv:1203.1907\[hep-th\]](#).
- ‘*Localized correlated features in the CMB power spectrum and primordial bispectrum from a transient reduction in the speed of sound.*’ Ana Achúcarro, Vicente Atal, Pablo Ortiz and Jesús Torrado. *Phys.Rev.* **D89** (2014) 103006, [arXiv:1311.2552\[astro-ph.CO\]](#).
- ‘*Inflation with moderately sharp features in the speed of sound: GSR and in-in formalism for power spectrum and bispectrum.*’ Ana Achúcarro, Vicente Atal, Bin Hu, Pablo Ortiz and Jesús Torrado. *Phys.Rev.* **D90** (2014) 023511, [arXiv:1404.7522\[astro-ph.CO\]](#).
- ‘*Perturbative stability along the supersymmetric directions of the landscape.*’ Kepa Sousa and Pablo Ortiz. [arXiv:1408.6521\[hep-th\]](#).

Curriculum Vitæ

I was born in Madrid, Spain, on 6 December 1985. I attended primary and high school at ‘Padre Manyanet’ until 2003. Later in September of the same year I started my bachelor in Physics in Universidad Autónoma de Madrid (UAM). During my last and fifth year I received a grant to collaborate in the Theoretical Physics department with Dr. Luis M. Robledo on a project related to modelling nuclear fission. I graduated in 2008 and a few months later I started the Master program on Theoretical Physics in Universidad Autónoma de Madrid. During my master studies I benefited two consecutive years from an MSc scholarship given by the same university. From 2009 to 2010, on the second year of the master program, I wrote a master thesis on “Phenomenology of massive neutrinos in particle physics and astrophysics”, supervised by Dr. Michele Maltoni. I graduated in 2010 and rapidly moved to Leiden, The Netherlands, where I started my PhD under the supervision of Prof. dr. Ana Achúcarro and co-supervision of Prof. dr. Jan-Willem van Holten. I was affiliated to two institutions: the Instituut-Lorentz for Theoretical Physics at Leiden University, and the National Institute for Subatomic Physics (Nikhef) in Amsterdam. I was financially supported by the Dutch Foundation for Fundamental Research on Matter (FOM). During my PhD I was teaching assistant for the courses on Elementary Particle Physics (two years), and Theory of General Relativity (two years). In 2014 I was awarded the “Teaching assistant of the year” prize. During the last year, I have enjoyed several stays at the Theoretical Physics department of the University of the Basque Country (UPV/EHU).

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Secondly, I want to thank my co-supervisor Jan-Willem van Holten, who shared his expertise in Supersymmetry and Supergravity with me. He has been always willing to discuss and help me with the most technical aspects of the work. He has always shown himself understanding, flexible, and professional. I thank you for offering your valuable help all these years.

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But I would have never arrived to the Netherlands without my previous formation as a theoretical physicist in Madrid, where I studied seven years. My physicist friends have made of me the physicist that I am today, and without them I would not be the same. I cannot count the hours we have spent working together among coffees, teas, beers and 'palmeras', and how much I learnt from all of you, not to mention the great days and nights we spent together in Madrid and elsewhere in the world. Alba, Clara, Edu, Emilio, Drino, Ernesto, Fito, Luis, Manuela, Miguel, Paco, Paloma, Paula, Pepe and Yago, thanks for everything.

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