

# Héctor Ramírez, Ph.D.

Curriculum vitae

Present Position	<b>Research fellow in Theoretical Physics</b> <b>Instituto de Física Corpuscular (IFIC) &amp; Department of Theoretical Physics</b> <b>University of Valencia</b> Parque Científico, C/Catedrático José Beltrán, 2. Paterna, 46980; Spain. (+34)693012381 — <a href="mailto:vanhramirez@gmail.com">vanhramirez@gmail.com</a> — <a href="https://hectoramirez.github.io">https://hectoramirez.github.io</a>
Nationality	Mexican — Current residence: Spain
Brief summary	I have published 8 refereed scientific articles on data analyses and mathematical modeling regarding the early-universe cosmology. All these publications were the result of individual specific projects, some of which were led by myself and in collaboration with people from the US, Japan, Italy, Germany and Spain. Furthermore, I have been a visiting researcher in important institutes in Italy, Chicago, Tokyo and the UK, where I collaborated with local people, gave talks and seminars (18 so far), led weekly meetings and contributed to outreach activities. Additionally, I have taught university-level courses during the last four years and served as a referee for scientific journals.

## Education

<b>PhD in Physics</b> 2015-2019	<b>University of Valencia, Spain.</b> Supervisor: Dr. Olga Mena Dissertation: <i>'Noncanonical Approaches to Inflation'</i>
<b>MA in Advanced Physics</b> 2013-2014	<b>University of Valencia, Spain.</b> Dissertation: <i>'The Hu-Sawicki Model of Modified Gravity'</i>
<b>BA in Physics</b> 2018-2013	<b>University of Veracruz, Mexico.</b> Dissertation: <i>'Quantum Chaos in the Dicke Model'</i>
2012	<b>Academic exchange semester, University of Valencia, Spain.</b>

## Professional Experience

### Long Research Stays

Apr - Jun, 2018	<b>Institute of Cosmology and Gravitation, University of Portsmouth</b>
Jan - Mar, 2018	<b>Kavli IPMU, The University of Tokyo</b>
May - Aug, 2017	<b>Fermi National Accelerator Laboratory (Fermilab) and Kavli Institute for Cosmological Physics – The University of Chicago</b>
Apr - Jun, 2015	<b>Abdus Salam International Center for Theoretical Physics (ICTP)</b> Trieste, Italy.
Mar - May, 2014	<b>NEXT Experiment, Instituto de Física Corpuscular (IFIC)</b> Valencia, Spain.

### Teaching

I have taught undergraduate courses managed by the Department of Theoretical Physics at the University of Valencia during the last four academic years—about 45 hours in the classroom (groups of around 15 students) + class preparation, per academic year.

<b>Classical Mechanics</b>	<b>Teaching Assistant</b> (2017-2019): Resolution of problems, examinations, evaluation of teaching contents and elaboration of teaching material.
<b>Introductory Physics</b>	<b>Teaching Assistant</b> (2015-2018): Resolution of problems, occasional lectures, examinations and grading.

### Journal referee

I have refereed scientific articles for the journals **Physical Review Letters** and **Physical Review D**, both from the American Physical Society (USA).

## Awards and Fellowships

2015 - 2019	<b>FPI Research fellow</b> by the <i>Ministry of Economy, Industry and Competitiveness</i> (MINECO), Spanish Government.
Jul - Sep, 2014	<b>Research scholarship</b> granted by the University of Valencia
Jan - Jul, 2011	<b>Grant for an abroad academic exchange semester</b> by the University of Veracruz Carried out at the Faculty of Physics, <i>University of Valencia</i> .
2009 - 2011	<b>Faculty award</b> due to academic excellence (x2) <i>University of Veracruz</i>

## Publications

A total of **8** research articles published either in **Physical Review D** (Astronomy & Astrophysics – Scie.; Physics, Particles & Fields — Scie.) [Impact factor: 4.568] (x5); **Journal of Cosmology and Astroparticle Physics** (Astronomy & Astrophysics – Scie.; Physics, Particles & Fields – Scie.) [Impact factor: 4.734] (x2); **Physics of the Dark Universe** (Astronomy & Astrophysics – Scie.) [Impact factor: 5.425] (x1).

My total list of publications can be found in my Inspire page:

<http://inspirehep.net/author/profile/H.Ramirez.1>

## Talks

Conference talks	<b>5</b> conference talks in Valencia, Paris, Teruel (Spain), Kyoto (Japan) and Portsmouth (UK).
Seminar talks	<b>13</b> seminar talks in Valencia (x2), Paris (x2), Tokyo, London, Portsmouth (UK), New York, Chicago, UC Berkeley (USA), Schladming (Austria) and Veracruz (Mexico).

Details about my talks can be found in <https://hectoramirez.github.io/Files/CV/Talks.pdf>.

## Skills

<b>Computer knowledge</b>	<b>Python:</b> Numpy, Scipy, Pandas, Matplotlib, GetDist, etc. Mathematical software: <b>Wolfram Mathematica</b> . Office suits: <b>LaTeX</b> , Microsoft Office, Apple iWork. Basic knowledge of <b>HTML</b> and <b>CSS</b> .
<b>Languages</b>	<b>Spanish:</b> Native; <b>English:</b> Fluent; <b>French:</b> B2 level. I have also taken <b>German</b> and <b>Italian</b> courses.
<b>Sports</b>	Highly active in organizing, managing and participating in sport teams, mainly on <b>football soccer</b> —I have joined and organized football teams in every place I have done a research stay.

## References

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### Teaching References:

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