

Arthur Loureiro

POST-DOCTORAL RESEARCH ASSISTANT · ASTROPHYSICS & COSMOLOGY

University College London, Physics & Astronomy Department, London, UK

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Research Experience

University College London

Post-DOCTORAL RESEARCH ASSISTANT

London, United Kingdom

Jan. 2019 - PRESENT

Euclid PDRA working with Dr. Benjamin Joachimi on pipeline development, testing, and validation for Weak Lensing power spectra.

Education

University College London

PHD IN ASTROPHYSICS

London, United Kingdom

2015 - 2019

Advisors: Dr. Filipe Abdalla and Prof. Ofer Lahav

Thesis: The Universe in Harmonic Space: Neutrinos and Dark Energy

University of São Paulo

Sao Paulo, Brazil

MASTERS IN MATHEMATICAL PHYSICS

2013 - 2015

Advisor: Prof. L. Raul Abramo

Thesis: Galaxy Power Spectrum: A Monte-Carlo Approach

Université de Montréal

Montréal, Canada

UNDERGRADUATE EXCHANGE

2012

Exchange program as a bachelor student in Physics under the Science without Borders Scholarship.

Universidade Federal do Rio Grande do Sul

Porto Alegre, Brazil

UNDERGRADUATE DEGREE IN PHYSICS WITH EMPHASIS IN ASTROPHYSICS

2010 - 2013

Advisor: Prof. Silvio R. Dahmen Dissertation: Relativistic Thermodynamics applied to Cosmological Models

Skills & Professional Services

Programming Advanced Python, Jupiter Notebook, and Shell/TCShell; intermediate C/C++, Fortran, Mathematica, SQL and HPC.

Cosmological Codes CLASS, Hi-CLASS, CAMB, CosmoMC, Flask, and Healpix.

Peer Reviewer Journal of Cosmology and Astroparticle Physics

Languages

English Fluent (speaking, reading, writing)

Portuguese Native speaker

French Intermediate (speaking, reading) and basic (writing)

Spanish Basic (writing, speaking, reading)

Publications

1 Upper Bound of Neutrino Masses from Combined Cosmological Observations and Particle Physics Experiments

A. Loureiro, A. Cuceu, et al., *Physical Review Letters*, 123 (8), 2019

2 Cosmological measurements from angular power spectra analysis of BOSS DR12 tomography

A. Loureiro, B. Moraes, et al., *Mon. Notices of the Royal Astronomical Soc.*, 485 (1), 2019

3 Fourier analysis of multitracer cosmological surveys

L. R. Abramo, L. F. Secco & **A. Loureiro**, *Mon. Notices of the Royal Astronomical Soc.*, 455 (4), 2016

Grants & Awards

NATIONAL COUNCIL FOR SCIENTIFIC AND TECHNOLOGICAL DEVELOPMENT (BRAZIL)

2015-2018 **Science without Borders PhD Fellowship**, University College London

£131,378

2012 **Science without Borders Exchange Scholarship**, Université de Montréal

CAN\$6700

Event Organisation

Cosmology and Extragalactic Seminars

London, UK

ORGANISER

2019-Currently

UCL's Cosmology and Extragalactic weekly seminars

Euclid CalWG, Garage Day & OU-LE3 Meeting

London, UK

ORGANISER

2017

Four day meeting at the Royal Astronomical Society and University College London.

Euclid Consortium Meeting

London, UK

PART OF THE ORGANISATIONAL GROUP

2017

Meeting at University College London

Euclid Level 3 Simulations Meeting

London, UK

ORGANISER

2017

One day meeting at University College London

CosmoClub

Sao Paulo, BR

ORGANISER

2014

Journal club and weekly seminars at the Department of Mathematical Physics, University of Sao Paulo

Physics Academic Week

Porto Alegre, BR

CO-ORGANISER

2011

2011 Physics Academic Week at UFRGS

References

Prof. Ofer Lahav

University College London

PROFESSOR AT THE DEPARTMENT OF PHYSICS AND ASTRONOMY

Contact: o.lahav@ucl.ac.uk

Dr. Benjamin Joachimi

University College London

READER IN ASTRONOMY

Contact: b.joachimi@ucl.ac.uk

Prof. L. Raul Abramo

University of Sao Paulo

PROFESSOR AT THE MATHEMATICAL PHYSICS DEPARTMENT

Contact: abramo@if.usp.br