# Uendert Andrade

### Basics

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[Inspire]

# RESEARCH INTERESTS

Theoretical cosmology, computational cosmology, foundations of cosmology, cosmological principle, dark energy, dark matter, cosmological perturbations, extensions of standard cosmology, cosmography, bayesian analysis, MCMC samplers

# RESEARCH POSITIONS

University of Michigan: Leinweber Fellow Ann Arbor, USA

Sep/2022 - current

Observatório Nacional: Postdoctoral Fellow Rio de Janeiro, Brazil

Dec/2021 - Aug/2022

### EDUCATION

Observatório Nacional: Ph.D. in Astronomy	Rio de Janeiro, Brazil
Supervisor: Jailson Alcaniz	$\mathrm{Mar}/2018\text{-Nov}/2021$

Thesis title: Probing the fundamental hypotheses of the standard cosmology

- University of Michigan: Visiting Scholar

Supervisor: Dragan Huterer

Sep /2010–Feb /2020

- Supervisor: **Dragan Huterer** Sep/2019-Feb/2020

Observatório Nacional: M.Sc. in Astronomy

Supervisor: Jailson Alcaniz

Rio de Janeiro, Brazil

Mar/2016–Feb/2018

Dissertation title: Testing the cosmological isotropy

UFRRJ: B.S. in Physics

Seropédica, Brazil

Federal Rural University of Rio de Janeiro, Brazil

Feb/2011—Jan/2016

### **PUBLICATIONS**

- [1] **U. Andrade**, D. Anbajagane, R. von Marttens, D. Huterer, and J. Alcaniz, "A test of the standard cosmological model with geometry and growth", *JCAP*, vol. 11, p. 014, 2021. arXiv: 2107.07538 [astro-ph.CO].
- [2] S. Bonoli *et al.*, "The miniJPAS survey: A preview of the Universe in 56 colors", *Astron. Astrophys.*, vol. 653, A31, 2021. arXiv: 2007.01910 [astro-ph.CO].
- [3] R. S. Gonçalves, G. C. Carvalho, **U. Andrade**, C. A. P. Bengaly, J. C. Carvalho, and J. Alcaniz, "Measuring the cosmic homogeneity scale with SDSS-IV DR16 Quasars", *JCAP*, vol. 03, p. 029, 2021. arXiv: 2010.06635 [astro-ph.CO].

- [4] U. Andrade, C. A. P. Bengaly, J. S. Alcaniz, and S. Capozziello, "Revisiting the statistical isotropy of GRB sky distribution", *Mon. Not. Roy. Astron. Soc.*, vol. 490, no. 4, pp. 4481–4488, 2019. arXiv: 1905.08864 [astro-ph.CO].
- [5] C. A. P. Bengaly, **U. Andrade**, and J. S. Alcaniz, "How does an incomplete sky coverage affect the Hubble Constant variance?", *Eur. Phys. J. C*, vol. 79, no. 9, p. 768, 2019. arXiv: 1810.04966 [astro-ph.CO].
- [6] U. Andrade, C. A. P. Bengaly, J. S. Alcaniz, and B. Santos, "Isotropy of low redshift type Ia Supernovae: A Bayesian analysis", Phys. Rev. D, vol. 97, no. 8, p. 083518, 2018. arXiv: 1711.10536 [astro-ph.CO].
- [7] U. Andrade, C. A. P. Bengaly, B. Santos, and J. S. Alcaniz, "A Model-independent Test of Cosmic Isotropy with Low-z Pantheon Supernovae", *Astrophys. J.*, vol. 865, no. 2, p. 119, 2018. arXiv: 1806.06990 [astro-ph.CO].

# SCHOLARSHIP/FELLOWSHIP

• Ministry of Science, Technology and Innovation of Brazil Postdoctoral Fellow	ship $Dec/2021$ -Aug/ $2022$
• FAPERJ: State of Rio de Janeiro best Ph.D candidates Scholarship	$\mathrm{Mar}/2020\mathrm{-Nov}/2021$
• CAPES-PDSE: Institutional Programme for Scholarships for Sandwich Doctor	orates Abroad Sep/2019–Feb/2020
• CAPES Scholarship for Ph.D	$\mathrm{Mar}/2018\text{-}\mathrm{Feb}/2020$
• CAPES Scholarship for M.Sc	$\mathrm{Mar}/2016\text{-}\mathrm{Feb}/2018$

## Research Visits

• University of Michigan: Collaborating with prof. Dragan Huterer Sep/2019-Feb/2020

### PEER REVIEW

• Referee for the Monthly Notices of the Royal Astronomical Society (MNRAS) since Jul/2020

### Seminars and Talks

- Brazilian Society of Physics: *Oral Communicatios* in the XLI National Meeting of Particle and Field Physics, Brazil (27/Sep/2021). "A Test of the Standard Cosmological Model with Geometry and Growth" [Home]
- Annual Gradute Student Seminar (31/Aug/2021) at Observatório Nacional. "Tests of the Standard Cosmological Model"
- Brazilian Society of Physics: *Poster-Talk* in the XXI Jorge André Swieca Summer School in Particles and Fields (04/Feb/2021). "A Test of the Standard Cosmological Model with Geometry and Growth" [Home]
- Javalambre Physics of the Accelerating Universe Astrophysical Survey (J-PAS) Theory Group Workshop Talk (18/Sep/2020). "Geometry-Growth splitting technique: An empirical consistency test of LCDM cosmology with J-PAS"
- Annual Gradute Student Seminar (21/Sep/2020) at Observatório Nacional. "Geometry-Growth splitting technique: An empirical consistency test of LCDM cosmology"
- Annual Gradute Student Seminar (11/Jun/2019) at Observatório Nacional. "Cosmic Isotropic with Low-z Pantheon Type Ia Supernovae"
- ICTP/SAIFR: School on Observational Cosmology (24/Jul/2019). "Tests of cosmological isotropy" [Home]

- Cosmology Group Meeting Talk (18/Sep/2019) at University of Michigan. "Testing the Cosmological Principle with Type Ia Supernovae and Gamma Ray Burst"
- International Institute of Physics/UFRN *Poster-Talk* in the Gravitational Wave Challenges and Cosmology Workshop (03/Jun/2019). "Revisiting the statistical isotropy of GRB sky distribution" [Home]
- Annual Gradute Student Seminar (04/Aug/2017) at Observatório Nacional. "Cosmic Isotropic Test with Type Ia Supernovae"

# Conferences, schools and workshops

- A Discussion on the Cosmological Principle (25/Oct/2021 28/Oct/2021) [Home]
- XLI National Meeting of Particle and Field Physics, Brazil (27/Sep/2021 29/Sep/2021) [Home]
- Cosmology from Home 2021 (05/Jul/2021 16/Jul/2021) [Home]
- I Brazilian Meeting of Girls and Women in Astrophysics, Gravitation and Cosmology (08/Feb/2021 11/Feb/2021)
  [Home]
- XXI Jorge André Swieca Summer School in Particles and Fields, Brazil (01/Feb/2021 05/Feb/2021) [Home]
- Cosmology Summer School 2020 at the University of Michigan (Virtually) (01/Jun/2020 05/Jun/2020) [Home]
- ICTP/SAIFR: III Joint ICTP-Trieste/ICTP-SAIFR School on Observational Cosmology. São Paulo, Brazil (22/Jul/2019 2/Aug/2019) [Home]
- International Institute of Physics/UFRN: Gravitational Wave Challenges and Cosmology Workshop. Natal, Brazil (03/Jun/2019 14/jun/2019) [Home]
- Ciclo de Cursos Especiais (CCE) at Observatório Nacional, Brazil (2016, 2017, 2018, 2020, 2021) [Home]
- IV Jayme Tiomno School of Cosmology at at Observatório Nacional, Brazil (29/Aug/2016 02/Sept/2016) [Home]

# Personal Interests

Running, soccer, calisthenics, music, writing, philosophy, science outreach, teaching, nature, cooking, animals, movies