

# CURRICULUM VITAE

## 1. Personal and contact information

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**Date of Birth** October 08, 1983  
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## 2. Education

- **2014** Ph. D. in Physics (Astrophysics), Universidade de São Paulo. Instituto de Física de São Carlos
- **2009** Master in Physics, Universidade de São Paulo. Instituto de Física de São Carlos.
- **2007** Undergraduate studies (Biological Physics), Universidade Estadual de São Paulo. Instituto de Biociências, Letras e Ciências Exatas de São José do Rio Preto.

## 3. Appointments

- **2019 - 2019** Visiting Researcher, Astrophysics, Deutsches Elektronen-Synchrotron (DESY)
- **2019 - 2019** Visiting Researcher, Astrophysics, Harvard-Smithsonian Center for Astrophysics
- **2017 - 2017** Visiting Researcher, Astrophysics, CUNY - Lehman College
- **2014 -** Associate Professor, Physics, Federal University of Paraná, Brazil

#### **4. Human resources management**

- Master Supervisor: 2 students.
- Supervisor of 15 bachelor students.

##### **In progress:**

- Master Supervisor: 8 students.
- Supervisor of 2 bachelor students.

#### **5. Prizes, fellowships, grants and funding**

- **2021** Cherenkov Telescope Array: Construction and First Discoveries (2021 - 2025), research support, 200 kUS\$
- **2021** Affiliate member of the Academy Brazilian of Science (2021 - 2025)
- **2020** L'Oréal Women in Science/Brazil –UNESCO – Academy Brazilian of Science, award, 10 kUS\$
- **2020** Research Fund UFPR, research support, 2k US\$
- **2019** Research Stays for University Academics and Scientists – DAAD, scholarship, 13k US\$
- **2018** Brazilian National Research Council, scholarship: post-doctoral, 21k US\$
- **2017** CNPq (Council for Scientific and Technological Development) Research Productivity Fellow (PQ) – Level 2, research support, 11k US\$
- **2017** Serrapilheira Institute, research support, 33k US\$
- **2017** Fulbright Junior Faculty Member Award, 12k US\$
- **2016** Brazilian National Research Council, research support, 1.5k US\$
- **2016** UFPR Fund of Academical Development support, 1k US\$
- **2014** Brazilian National Research Council, research support, 3.5k US\$
- **2010** Brazilian National Research Council, scholarship, 40k US\$
- **2007** Brazilian National Research Council, scholarship, 10k US\$
- **2004** Brazilian National Research Council, scholarship, 3k US\$

## 6. Organization of workshops and scientific events

- V Regional Physics Education Meeting (Organizing Committee). May 2020, online event.
- Organization of Researcher Connect Programme - British Council. December 2018, Palotina, Paraná, Brazil.
- Organization of Conference on Black Holes as Cosmic Batteries: UHECRs and Multimessenger Astronomy – September 2018, Foz do Iguaçu, Paraná, Brazil (Chair).  
Proceedings: <https://pos.sissa.it/329/>  
Youtube Channel with talks: <https://bit.ly/2RWaR1U>
- Organization of First week of scientific writing – August 2016, Palotina, Paraná, Brazil (Chair)
- Journal Club of Exact Sciences at Dep. of Engineering and Exact Sciences, 2015, UFPR
- UFPR Parana (BR) “5<sup>th</sup> - 11<sup>th</sup> Fair of Science and Technology” since 2015 (Organizing Committee)
- 1<sup>a</sup> e 2<sup>a</sup> Edition of Physics workshop, chemistry and mathematics for high school public school teachers. 2015 and 2016. Palotina and Umuarama, Paraná, Brazil (Chair).
- 1<sup>a</sup> Edition of Gamification and accessibility in physics teaching – May 2017, Palotina, Paraná, Brazil (Chair).

## 7. Publications/Products (Selection)

Apparently, our planet rests in a peaceful corner of a calm galaxy where our lives develop undisturbed. However, there are billions of extreme object and events happening around us. Huge and massive objects named black holes are present in almost all galaxies in the neighborhood as well as in the center of the Milky Way. At the same time, tiny microscopic particles with an enormous amount of energy bomb Earth continuously. The so called cosmic rays travel thousands of years before we detect them in dedicated observatories. The science developed so far is not able to explain how these subatomic particles are accelerated to such high energies, roughly one thousand times larger than any human made machine is capable of. Below are some works with the aim of contributing to the understanding the origin and acceleration mechanisms of cosmic rays:

Coimbra-Araujo and **R. C. Anjos** . Acceleration of charged particles from near-extremal rotating black holes embedded in magnetic fields. *Classical and Quantum Gravity*, 38 015007, 2020.  
<https://iopscience.iop.org/article/10.1088/1361-6382/abc189>

**R. C. Anjos** and F. Catalani. Galactic Center as an efficient source of cosmic rays. *Physical Review D*, v. 101, p. 123015, 2020. <https://journals.aps.org/prd/pdf/10.1103/PhysRevD.101.123015>

**R. C. Anjos**, L. Anchordoqui, et al. Ultrahigh-Energy Cosmic Ray Composition from the Distribution of Arrival Directions. *ArXiv:1810.04251*. *Physical Review D* Vol: 98, (123018), 2018.  
<https://journals.aps.org/prd/abstract/10.1103/PhysRevD.98.123018>

**R. C. Anjos**; V. de Souza, A.D. Supanitsky. Upper limits on the total cosmic-ray luminosity of individual sources. *Journal of Cosmology and Astroparticle Physics*, v. 2014, p. 049-049, 2014. <https://iopscience.iop.org/article/10.1088/1475-7516/2014/07/049>

Pierre Auger Collaboration. Observation of a large-scale anisotropy in the arrival directions of cosmic rays above 8 EeV. *SCIENCE*, v. 357, p. 1266-1270, 2017. <https://science.sciencemag.org/content/357/6357/1266>

**R. C. Anjos**, C. H. Coimbra-Araújo, Central accumulation of magnetic flux in massive Seyfert galaxies as a possible engine to trigger ultrahigh energy cosmic rays, *Physical Review D*, Vol:96 (023008), 2017. <https://journals.aps.org/prd/abstract/10.1103/PhysRevD.96.023008>

## 8. Physics Outreach - book chapters

- **R. C. Anjos.** Você sabia que os raios cósmicos existem? Camila Tonezer; Roberta Paulert. (Org.). *Almanaque das curiosidades*. 1ed. Curitiba: Editora UFPR, 2019, v. 1, p. 15. <https://www.yumpu.com/xx/document/read/62873554/almanaquecuriosidades-ufpr>
- **R. C. Anjos.** Você sabia que nós, o mundo e o Universo somos constituídos de partículas? Camila Tonezer; Roberta Paulert. (Org.). *Almanaque das curiosidades*. 1ed. Curitiba: Editora UFPR, 2019, v. 1, p. 38.

## 9. Lectures/ Seminars/ Podcast/Interviews (selected)

- Ciência e racismo: Paulo Markun entrevista astrofísica Rita de Cassia dos Anjos | [Conversas na crise - Depois do futuro](#)
- [Jornada Iniciação Científica CBPF](#)
- [Mulheres fazendo ciência: Raios Cósmicos de Altíssimas energias: origem e aceleração](#)
- [Online Seminar: Distribution of arrival directions of Ultrahigh-energy cosmic rays composition](#)
- [Podcast Mulheres na Ciência: Rita de Cássia dos Anjos](#)

## 10. Synergistic Activities

- **2021:** Affiliate member of the Academy Brazilian of Science
- **2020:** Award L'Oréal Women in Science/Brazil –UNESCO – Academy Brazilian of Science
- **2018:** Chair of Conference on Black Holes as Cosmic Batteries: UHECRs and Multimessenger Astronomy – September 2018, Foz do Iguaçu, Paraná, Brazil (Chair): <https://bit.ly/2RWaR1U>
- **2015:** Development of pedagogical methods in physics for blind people (students): <http://www.fisicaembraille.ufpr.br/>
- **2014:** Member of Pierre Auger Observatory and Cherenkov Telescope Array