

# Carlos Eduardo Barbosa

## | Curriculum Vitae

Rua do Matão, 1226 - Butantã, São Paulo - SP - 05508-090 - Brazil

✉ kadu.barbosa@gmail.com • 🌐 www.cebarbosa.com  
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## Education

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2012 - 2016 PhD in Astronomy, Universidade de São Paulo, IAG.....

Title: *Kinematics and Stellar Populations in the Nearby Universe*

Supervisor: Prof. Cláudia Mendes de Oliveira

Funding: FAPESP

2009 - 2011 MSc in Astronomy, Universidade de São Paulo, IAG.....

Title: *Photometry, Decomposition and Correlations for Nearby Spiral Galaxies from the GHASP Survey*

Supervisor: Prof. Cláudia Mendes de Oliveira

Funding: CNPq, FAPESP

2005 - 2009 BSc in Physics, Universidade de São Paulo, Institute of Physics.....

## Academic Experience

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Departamento de Astronomia, IAG, Universidade de São Paulo

FAPESP Postdoctoral Fellow

Supervisor: Prof. Cláudia Mendes de Oliveira

Steward Observatory, University of Arizona

Research Associate

Supervisor: Prof. Dennis Zaritsky

São Paulo

Dec 2016 - Now

Tucson

Feb 2019 - Jan 2020

## Professional Experience

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Administrative Intern

Library, Biomedical Sciences Institute, Universidade de São Paulo

São Paulo

2006 - 2008

CNC Lathe Operator

York International

São Paulo

2000 - 2005

## Fellowships

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FAPESP Research Internships Abroad (BEPE)

Steward Observatory, University of Arizona

Tucson

Feb 2019 - Jan 2020

FAPESP Postdoctoral Fellowship

IAG, Universidade de São Paulo

São Paulo

Dec 2016 - Jan 2020

FAPESP Research Internships Abroad (BEPE)

European Southern Observatory

Munich

Mar 2013 - Feb 2014

FAPESP Doctoral Fellowship

IAG, Universidade de São Paulo

São Paulo

Jan 2012 - Jun 2016

**FAPESP Masters Fellowship**  
*IAG, Universidade de São Paulo*

**São Paulo**  
*Mar 2010 – Jul 2011*

**CNPq Undergraduate Fellowship**  
*Institute of Physics, Universidade de São Paulo*

**São Paulo**  
*Aug 2008 – Jul 2010*

## Memberships

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**International Astronomical Union:** Junior member.

**Brazilian Astronomical Society:** Effective member.

## Organizing Committees

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**SPANet Workshop on Clusters of Galaxies and the Large-Scale Structure of the Universe** **São Paulo**  
*IAG, Universidade de São Paulo, Local organizing committee* *Mar 2018*

**ESO/NUVA/IAG Workshop on Challenges in UV Astronomy** **Munich**  
*ESO, Local organizing committee* *Oct 2013*

## Multimedia

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- Featured image, *Needle in a Haystack*, Revista FAPESP (March 2020), <https://revistapesquisa.fapesp.br/2020/03/05/agulha-no-palheiro-2/>
- Cover image, A&A Volume 589 (May 2016), <https://www.aanda.org/articles/aa/abs/2016/05/contents/contents.html>

## References

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**Cláudia Mendes de Oliveira**  
Department of Astronomy  
IAG-USP  
R. do Matão, 1226  
05508-090 São Paulo  
Brazil  
claudia.oliveira@iag.usp.br

**Magda Arnaboldi**  
European Southern Observatory  
Karl-Schwarzschild-str., 2  
85748 Garching b. München  
Germany  
lcoccato@eso.org

**Dennis Zaritsky**  
Steward Observatory  
University of Arizona  
933 N Cherry Ave, Tucson, AZ  
85719,  
United States  
dennis.zaritsky@gmail.com

## Publications

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- C. Lima-Dias, A. Monachesi, S. Torres-Fores, A. Cortesi, D. Hernández-Lang, **C. E. Barbosa**, C. Mendes de Oliveira, et al. “An environmental dependence of the physical and structural properties in the Hydra Cluster galaxies”. In: *MNRAS* (2020, submitted)
- T. Richtler, M. Hilker, M. Arnaboldi, and **C. E. Barbosa**. “Dust and star formation in the centre of NGC 3311”. In: *A&A* (2020, submitted)
- **C. E. Barbosa**, D. Zaritsky, R. Donnerstein, H. Zhang, A. Dey, C. Mendes de Oliveira, L. Sampedro, A. Molino, M. V. Costa-Duarte, P. Coelho, A. Cortesi, F. R. Herpich, J. A. Hernandez ez-Jimenez, T. Santos-Silva, E. Pereira, A. Werle, R. A. Overzier, R. Cid Fernandes, A. V. Smith Castelli, T. Ribeiro, W. Schoenell, and A. Kanaan. “One Hundred SMUDGes in S-PLUS: Ultra-diffuse Galaxies Flourish in the Field”. In: *ApJS* 247.2, 46 (Apr. 2020), p. 46. DOI: 10.3847/1538-4365/ab7660. arXiv: 2002.05171 [astro-ph.GA]
- C. Mendes de Oliveira, T. Ribeiro, W. Schoenell, A. Kanaan, R. A. Overzier, A. Molino, L. Sampedro, P. Coelho, **C. E. Barbosa**, et al. “The Southern Photometric Local Universe Survey (S-PLUS): improved SEDs, morphologies, and redshifts with 12 optical filters”. In: *MNRAS* 489.1 (Oct. 2019), pp. 241–267. DOI: 10.1093/mnras/stz1985. arXiv: 1907.01567 [astro-ph.GA]
- M. V. Costa-Duarte, L. Sampedro, A. Molino, H. S. Xavier, F. R. Herpich, A. L. Chies-Santos, C. E. Barbosa, A. Cortesi, W. Schoenell, A. Kanaan, T. Ribeiro, C. Mendes de Oliveira, S. Akas, A. Alvarez-Candal, **C. E. Barbosa**, et al. “The S-PLUS: a star/galaxy classification based on a Machine Learning approach”. In: *arXiv e-prints*, arXiv:1909.08626 (Sept. 2019), arXiv:1909.08626. arXiv: 1909.08626 [astro-ph.GA]
- A. Molino, M. V. Costa-Duarte, L. Sampedro, F. R. Herpich, Jr. Sodr  L., C. Mendes de Oliveira, W. Schoenell, **C. E. Barbosa**, et al. “Assessing the photometric redshift precision of the S-PLUS survey: the Stripe-82 as a test-case”. In: *arXiv e-prints*, arXiv:1907.06315 (July 2019), arXiv:1907.06315. arXiv: 1907.06315 [astro-ph.GA]
- M. Hilker, T. Richtler, **C. E. Barbosa**, M. Arnaboldi, L. Coccato, and C. Mendes de Oliveira. “The Hydra I cluster core. II. Kinematic complexity in a rising velocity dispersion profile around the cD galaxy NGC 3311”. In: *A&A* 619, A70 (Nov. 2018), A70. DOI: 10.1051/0004-6361/201731737. arXiv: 1809.01163
- **C. E. Barbosa**, M. Arnaboldi, L. Coccato, O. Gerhard, C. Mendes de Oliveira, M. Hilker, and T. Richtler. “Sloshing in its cD halo: MUSE kinematics of the central galaxy NGC 3311 in the Hydra I cluster”. In: *A&A* 609, A78 (Jan. 2018), A78. DOI: 10.1051/0004-6361/201731834. arXiv: 1710.08941
- **C. E. Barbosa**, M. Arnaboldi, L. Coccato, M. Hilker, C. Mendes de Oliveira, and T. Richtler. “The Hydra I cluster core. I. Stellar populations in the cD galaxy NGC 3311”. In: *A&A* 589, A139 (May 2016), A139. DOI: 10.1051/0004-6361/201628137. arXiv: 1603.02202
- **C. E. Barbosa**, C. Mendes de Oliveira, P. Amram, F. Ferrari, D. Russeil, B. Epinat, V. Perret, C. Adami, and M. Marcelin. “GHASP: an H $\alpha$  kinematic survey of spiral galaxies - X. Surface photometry, decompositions and the Tully-Fisher relation in the R<sub>c</sub> band”. In: *MNRAS* 453 (Nov. 2015), pp. 2965–2981. DOI: 10.1093/mnras/stv1685. arXiv: 1508.03004
- **C. E. Barbosa**, M. Arnaboldi, M. Hilker, L. Coccato, T. Richtler, and C. Mendes de Oliveira. “A 3D view of the Hydra I cluster core- II. Stellar populations”. In: *IAU Symposium*. Ed. by B. L. Ziegler, F. Combes, H. Dannerbauer, and M. Verdugo. Vol. 309. IAU Symposium. Feb. 2015, pp. 223–224.

DOI: 10.1017/S1743921314009727. arXiv: 1410.0696

- M. Hilker, **C. E. Barbosa**, T. Richtler, L. Coccato, M. Arnaboldi, and C. Mendes de Oliveira. “A 3D view of the Hydra I galaxy cluster core - I. Kinematic substructures”. In: *IAU Symposium*. Ed. by B. L. Ziegler, F. Combes, H. Dannerbauer, and M. Verdugo. Vol. 309. IAU Symposium. Feb. 2015, pp. 221–222. DOI: 10.1017/S1743921314009715. arXiv: 1410.0695
- J. C. Basto Pineda, C. Mendes de Oliveira, **C. E. Barbosa**, P. Amram, and V. Perret. “The CUSP/CORE problem from a 2D view”. In: *Dark Side of the Universe (DSU 2012)*. 2012, p. 23