

Miguel Sabogal García

Curriculum Vitæ

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Professional experience

05/2022 - 08/2022 **Research intern**, RECA Internship program 2022, Red de Estudiantes de Astronomía de Colombia.

05/2022 - 06/2022 **Supportive Mentor**, Pgm. de Apoyo a la Permanencia y Graduación estudiantil, Universidad del Atlántico

Education

- 2015 – 2022 **Physicist**, Bachelor's degree/ Universidad del Atlántico.

Research Experience and Publications

Peer-Reviewed Publications

- Oliveros, A., **Sabogal, M.A.**, & Acero, M.A. Barrow holographic dark energy with Granda–Oliveros cutoff. Eur. Phys. J. Plus 137, 783 (2022). [DOI: 10.1140/epjp/s13360-022-02994-z](https://doi.org/10.1140/epjp/s13360-022-02994-z)
- Sabogal, M. A.** , Parra, I. C. , Bandera, M. , Gallardo, J. , & Mejía-Cortés, C. (2020, May). Mobility of localized beams in non-homogeneous photonic lattices. In Journal of Physics: Conference Series (Vol. 1547, No. 1, p. 012023). IOP Publishing. [DOI: 10.1088/1742-6596/1547/1/012023](https://doi.org/10.1088/1742-6596/1547/1/012023)

Manuscripts Under Review

- Cardona, W., & **Sabogal, M.A.** (2022). Holographic energy density, dark energy sound speed, and tensions in cosmological parameters: H0 and S8. arXiv preprint [arXiv:2210.13335](https://arxiv.org/abs/2210.13335).

In Preparation

- Sabogal, M.A.**, & Gonzalez, J.(2022). Hubble constant estimation from BAO signals with LSST-simulated data. [Draft: zenodo.7131390](https://zenodo.org/record/7131390)

Honors and Awards

- Funding award "**Enabling Science Program 2021 Award - 51**", granted by the Legacy Survey of Space and Time (LSST) observatory.
- Undergraduate Honors Theses**, Universidad del Atlántico.

Additional languages

English Read: **C1** Speak: **B2** Write: **B2** Listen: **C1**

Presentations and Events

Event: XIV Latin American Symposium on High Energy Physics

Type of event: International Congress

Type of participation: Speaker

Conference title: Decoding Holographic Dark Energy in the structure formation.

Place: QUITO, ECUADOR - Universidad San Francisco de Quito, 14/11/2022 – 18/11/2022.

Event: CoCo 2021: Cosmology in Colombia

Type of event: National Congress

Type of participation: Speaker

Conference title: Cosmological analysis of Barrow holographic dark energy model considering the Granda-Oliveros infrared cutoff.

Place: Online, 08/09/2021 – 11/09/2021.

Event: 4th Colombian Meeting on High Energy Physics

Type of event: National Congress

Type of participation: Support staff and Assistant

Place: BARRANQUILLA - Universidad del Atlántico, 02/12/2019 – 06/12/2019.

Event: XVI National Meeting on Optics and VII Andean and Caribbean Conference on Optics and its applications

Type of event: National Congress

Type of participation: Speaker

Conference title: Mobility of localized beams in non-homogeneous photonic lattices.

Place: MONTERÍA - Universidad de Córdoba, 26/11/2019 – 30/11/2019.

Computational skills

Specialized software **Cosmic Linear Anisotropy Solving System (CLASS):** Advanced

Specialized software **Gaussian processes (GaPP):** Advanced

Python: Advanced

C: Intermediate

C++: Intermediate

Fortran 90: Intermediate

MATLAB: Advanced

Mathematica: Advanced

Web repositories

GitHub: [msabogal](#)
