HERNÁN E. NORIEGA

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EDUCATION

Instituto de Física, Universidad Nacional Autónoma de México (UNAM) *2022 - Present*
PhD in Science (Physics) *CDMX, Mexico*

Advisors: Dra. Mariana Vargas-Magaña & Dr. Alejandro Aviles
Grants: CONACYT Scholarship

Instituto de Física, Universidad Nacional Autónoma de México *2020 - 2021*
Master in Science (Physics) *CDMX, Mexico*

Thesis: 'Effects of massive neutrinos on the Large Scale Structure of the Universe'
Thesis Advisors: Dra. Mariana Vargas-Magaña & Dr. Alejandro Aviles

Distinctions: Graduated with honors; Score 100 %
Grants: CONACYT Scholarship, PAEP-UNAM

Universidad del Atlántico (UA) *2014 - 2019*
BA in Physics *Barranquilla, Colombia*

Thesis: 'Constant-roll inflation driven by a scalar field with nonminimal derivative coupling'
Thesis Advisor: Dr. Alexander Oliveros

Distinctions: Graduated with honors; 1^{st} Class (Rank 1/55, 90 %)
Grants: UA Scholarship

LANGUAGES

Spanish Native
English Fluent

LONG-TERM ACADEMIC VISITS

Instituto Nacional de Investigaciones Nucleares (ININ) *2022 - Present*
Visiting Graduate Student with Dr. Alejandro Aviles *La Marquesa, Mexico*

Instituto de Ciencias Físicas, UNAM *Jan. - April, 2021*
Visiting Graduate Student with Dr. Sebastien Fromenteau *Cuernavaca, Mexico*

PUBLICATION LIST

Profile: arXiv, INSPIRE

* = *Author list alphabeticized*

1. **Hernán E. Noriega**, Alejandro Aviles, Sebastien Fromenteau, Mariana Vargas-Magaña, "*Fast computation of non-linear power spectrum in cosmologies with massive neutrinos*", *JCAP* 11 (2022) 038 (arXiv).

2. *DESI Collaboration • B. Abareshi (incl. **Hernán E. Noriega**), "*Overview of the Instrumentation for the Dark Energy Spectroscopic Instrument*", *Astron.J.* **164** (2022) 5, 207 (arXiv).

3. A. Oliveros, **Hernán E. Noriega**, "*Constant-roll inflation driven by a scalar field with nonminimal derivative coupling*", *Int. J. Mod. Phys. D* **28** (2019) 12, 1950159 (arXiv).

MENTIONS

1. Alejandro Aviles, Arka Banerjee, Gustavo Niz, Zachary Slepian, "*Clustering in massive neutrino cosmologies via Eulerian Perturbation Theory*", *JCAP* **11** (2021) 028, (arXiv)

SELECTED TALKS

** = Virtual Talk*

2022

- *DESI Collaboration Meeting, Breakout 3a: Compressed Statistics (joint KP57+GQC) - Updates on FOLPS*, Cancun, Mexico, Dec.
- *VIII Essential Cosmology for the Next Generation*, Cancun, Mexico, Dec. - *Contributed Talk.*
- **Celebration for the Physicist day and the 20 year of the physics program*, Universidad del Atlantico, Barranquilla, Colombia, Nov. - *Invited Talk.*
- **DESI Collaboration Meeting, Breakout 7a: Update on GQC projects – Bayview*, Berkeley, California, USA, June.

2021

- *Short course: FFTLog formalism in cosmological perturbation theories*, Instituto Avanzado de Cosmología (IAC), CDMX, Mexico, Aug. - *Invited Talk.*
- **Celebration for the day of light*, SCOP (OSA & SPIE), Barranquilla, Colombia, May - *Invited Talk.*

2018

- *VIII Regional Physics Meeting*, SUE Caribe & Sociedad Colombiana de Física, Barranquilla, Colombia, Nov.
- *II Workshop on Current Challenges in Cosmology*, UAN, Univalle, UNAL y COLCIENCIAS, Bogotá, Colombia, Nov.
- *XV Departmental Meeting of Research*, RedCOLSI, Barranquilla, Colombia, May.

ACADEMIC EXPERIENCE

Vera C. Rubin Observatory (LSST) *2022 - Present*
LSST member

Dark Energy Spectroscopic Instrument (DESI) *2021 - Present*
DESI member

Institución Educativa Distrital Ciudadela Estudiantil *2019 - 2020*
High School teacher in Physics and Mathematics *Barranquilla, Colombia*

Universidad del Atlántico *2019 - 2020*
Administrative staff: Physics labs *Barranquilla, Colombia*

Universidad del Atlántico *2016 - 2018*
Assistant teacher *Barranquilla, Colombia*

TECHNICAL STRENGTHS

Computing Languages	Python, MATHEMATICA, MATLAB, C++
Codes Developed	FOLPSν
Supercomputer	Miztli, Atocatl, NERSC

REFERENCES

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CONACYT & ININ
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Dr. Sebastien Fromenteau
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