



Education

- 2019–2024 **Doctor of Philosophy**, *Uppsala University*, Uppsala, (Sweden)
Blowing Bubbles from String Theory
advisors: Ulf Danielsson, Tobias Ekholm, Georgios Dimitroglou
Embedding of the dark bubble model in string theory and phenomenological consequences
- 2016–2019 **Degree of Master of Science (120 ECTS)**, *Uppsala University*, Uppsala, (Sweden)
Type IIB compactifications and string dualities
supervisor: Giuseppe Dibitetto
Compactifications on toroidal orbifolds, non-geometric fluxes and S,T dualities
- 2010–2016 **Bachelor in Physics (240 ECTS)**, *Universidad Complutense de Madrid*, Madrid, (Spain)

Research Experience

- 2024–2026 **JSPS Postdoctoral position**, *Kyoto University*, Japan
- 2019–2024 **Ph.D**, *Uppsala University*, Sweden

Research Visits

- Dec 2025 **Visiting Researcher**, *Max Planck Institute for Physics*, Collaborator: Dr. Ivano Basile and Joaquin Masias
- Sep 2025 **Visiting Researcher**, *Uppsala University*, Collaborator: Prof. Ulf Danielsson, Dr. Suvendu Giri and Dr. Vicent van Hemelryck
- Apr 2025 **Visiting Researcher**, *Nottingham University*, Collaborator: Prof. Antonio Padilla and Benjamin Muntz
- Oct-Dec 2018 **Visiting Student**, *LMU*, Supervisor: Prof. Dieter Lust

Teaching experience

- 2020–2024 **Teacher Assistant**, *Classical Electrodynamics (10 ECTS)*
- 2022–2023 **Teacher Assistant**, *Gravitation and Cosmology (10 ECTS)*
- 2022–2023 **Lab Assistant**, *Mekanik III (på Svenska, 10 ECTS)*

Invited Talks

- May 2025 ***Braneworlds from the Swampland***, seminar at *Yukawa Institute*, Japan
- Apr 2025 ***How does a non-Bunch Davis vacuum sound like?***, seminar at *Nottingham University*, UK
- Nov 2023 ***Our Universe on a (Dark) Bubble***, (digital) seminar at *CAPT*, University of Nottingham, UK
- Nov 2023 ***Experimental tests of dark bubble cosmology***, (digital) seminar at *IFT*, Spain
- Nov 2023 ***A cosmological excursion to Dark Bubbles***, (digital) talk at *String Pheno seminars*
- Nov 2023 ***Our Universe on a (Dark) Bubble***, (digital) seminar at *Oviedo University*, Spain
- Jul 2023 ***Dark bubble cosmology***, (digital) seminar at *Kyoto University*, Japan
- Dec 2022 ***Blowing bubbles from string theory***, seminar at *Helsinki Institute of Physics*, Finland

Publications

[1] I. Basile, A. Borys, J. Masias, B. Muntz and D. Panizo, *An Invitation to Dark Bubble Cosmology (In preparation)*, TBD (2026) .

[2] U. Danielsson, D. Panizo and V. Van Hemelryck, *Self-gravitating electromagnetic waves in the dark bubble model*, 2606.16547.

[3] D. Panizo, *Blowing Bubbles from String Theory*, Uppsala U., Inst. Theor. Phys. (2024) .

[4] U. Danielsson and D. Panizo, *Experimental tests of dark bubble cosmology*, *Phys. Rev. D* **109** (2024) 026003 [2311.14589].

[5] I. Basile, U. Danielsson, S. Giri and D. Panizo, *Shedding light on dark bubble cosmology*, *JHEP* **02** (2024) 112 [2310.15032].

[6] U. Danielsson, O. Henriksson and D. Panizo, *Stringy realization of a small and positive cosmological constant in dark bubble cosmology*, *Phys. Rev. D* **107** (2023) 026020 [2211.10191].

[7] U. Danielsson, D. Panizo and R. Tielemans, *Gravitational waves in dark bubble cosmology*, *Phys. Rev. D* **106** (2022) 024002 [2202.00545].

[8] U.H. Danielsson, D. Panizo, R. Tielemans and T. Van Riet, *Higher-dimensional view on quantum cosmology*, *Phys. Rev. D* **104** (2021) 086015 [2105.03253].

Awards and Scholarships

2025–2026	Daiwa Foundation Small Grant Travel grant to cover costs of scientific visits to Nottingham and Kyoto/Tokyo by Prof. Antonio Padilla (PI), Benjamin Muntz (Co-PI) and Daniel Panizo (co-PI)
2024–2026	Kakenhi Grant , (Ref N: 24KF0232) Grant-in-Aid for JSPS research fellow granted by the Japan Society for the promotion of science, to cover the travel cost of scientific stays in other institutions or conference participation.
2024–2026	JSPS Postdoctoral Standard Fellowship Postdoctoral fellowship awarded by the Japan Society for the Promotion of Science (JSPS) to conduct research at Kyoto University, hosted by Professor Takahiro Tanaka.
2019–2024	CIM Scholarship , Uppsala University PhD funding awarded by CIM to attend conferences, visit other institutions, as well as acquiring a computer.
2019	Lundström-Åman scholarship , Uppsala University Project: Compactifications on Calabi-Yau manifolds: A backstage for string cosmology Master funding awarded by Uppsala University to pay for accomodation expenses while the associated project was conducted.
2018	Erasmus+ scholarship , European Commission Erasmus funding awarded by Erasmus+ programme to pay for accomodation expenses during my research visit to Arnold Sommerfeld Center (Munich) under Prof. Dieter Lüst supervision.

Computational Knowledge

	Level	Skill	Years	Comment
Language:	■■■■■	Mathematica	7	Symbolic computations
	■■■□□	Python	5	Object oriented coding + expertise in Manim libraries
	■■■■■	ℒ _T ℒ _X	10	Articles, notes and grant applications written in ℒ _T ℒ _X

Languages

Spanish	Native	English	Proficient (C2)
Swedish	Fluent (B2/C1)	Japanese	Beginner (N5)
French	Beginner (A2)	Other	Willing to learn
		Language	