



Dr Alejandro Benítez-Llambay

Curriculum Vitae

Contact and Profile Information

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Research Interest and Expertise

Galaxy formation and evolution, dwarf galaxies, radiative transfer, cosmology, intergalactic medium, cosmic reionization, star formation, galactic dynamics, numerical Nbody+Hydrodynamics simulations, numerical methods.

Education

2011–2015 **PhD in Astrophysics, National University of Córdoba, Argentina,** GPA:10/10.
2006–2011 **Licenciatura in Astrophysics (MSc equivalent), National University of Córdoba., Argentina,** Graduated with distinction: GPA:9.18/10.

Employment

2024–to date **Assistant Professor,** *Physics Department, University of Milano-Bicocca, Italy.*
2021–2024 **Senior Research Associate,** *Physics Department, University of Milano-Bicocca, Italy.*
2015–2021 **Research Associate,** *Physics Department, Durham University, UK.*
2014–2017 **Assistant Professor,** *National University of Córdoba, Argentina.*
2013 **Graduate Student Fellowship,** *University of Victoria, Canada.*
2011–2015 **Graduate Student Fellowship,** *National Scientific and Technical Research Council (CONICET), Argentina.*

Awards, Honours, and Scholarships

- 2023 **Abilitazione Nazionale Italiana**, *Professore Associato*, Ministero dell'Università e della Ricerca.
- 2021 **Marie Skłodowska-Curie Fellow Researcher**, *Fellowship*, European Commission.
- 2020 **Seal of Excellence**, *European Commission*, Project 891687: DarkGalaxies, in recognition of outstanding research proposal. Score: 91/100.
- 2013 **Emerging Leaders in the Americas Fellowship**, *University of Victoria, Canada*.
- 2012 **Retama Foundation Prize**, *in recognition of outstanding overall academic performance*.
- 2010 **Argentine Astronomy Society Scholarship**, *Argentina*.
- 2006-2011 **Retama foundation Scholarship**, *Argentina*.

Teaching

- 2024-2025 **Galaxy Evolution in Cosmic Structures A: Cosmological Numerical Simulations**, *University of Milan-Bicocca, Italy*, Course for PhD students on Numerical Cosmology applied to the analysis and production of Cosmological Hydrodynamical Numerical Simulations..
- 2024 **Introduction to Galaxies**, *University of Milan-Bicocca, Italy*, Course module for the Master in Astrophysics focused on the numerical modelling of the Jeans instability..
- 2023 **52nd Saas-Fee Advanced Course**, *University of Geneva, Switzerland*, Teaching Assistant on numerical radiative transfer and data analysis for advanced PhD students and early-career Postdocs.
- 2015-2021 **Foundations of Physics course**, *Durham University, UK*, Weekly tutorials for undergraduate students.
- 2019-2020 **Discovery Skills in Physics**, *Durham University, UK*, Leading demonstrator of the “Introduction to Python Programming” course for undergraduate students.
- 2018-2019 **High-Performance Computing for PhD students**, *Durham University, UK*, Preparation and teaching of the computing labs on HPC for postgraduate students.
- 2014-2015 **Calculus and Numerical methods**, *Faculty of Mathematics, Astronomy and Physics, Argentina*, Weekly lectures for undergraduate students, including exam preparation and grading..
- 2010-2011 **Undergraduate teaching assistant**, *National University of Córdoba, Argentina*, Assistance in tutorials on stellar astrophysics, calculus, classical mechanics, General Physics and Electrodynamics..

Supervision and mentoring

I have supervised students at different levels of their careers, from short summer internships to intermediate Master projects to full PhD research programs, all of them successfully. I list them below:

PhD students

- 2024-to date **Mr Francesco Turini**, *University of Milano-Bicocca*.
- 2021-2024 **Mr Georg Herzog**, *University of Milano-Bicocca*.
- 2020-2023 **Mr Victor J. Forouhar Moreno**, *Durham University*.
- 2016-2020 **Ms Anna Genina**, *Durham University*.

Master students

- 2022-2023 **Ms Giulia Pruto**, *University of Milano-Bicocca*.
- 2020 **Mr Mattia Claudio D'Arpa**, *University of Milano-Bicocca*.
- 2019 **Mr Adam Fisher**, *Durham University*.

Internships

- 2024 **Mr Gabriele Davi**, *University of Milano-Bicocca*.
- 2019 **Mr Gerrit Farren**, *Durham University*.

Grants

Computing time in HPC centres

- 2023 1000 GPU hours in Leonardo (CINECA). Project: Radiative Transfer in a Clumpy Universe. Grant Holder: Alejandro Benitez-Llambay
- 2021 3M CPU hours in DiRAC. Project: Probing the small-scale structure of Λ CDM during the epoch of Cosmic Reionization. Grant Holder: Alejandro Benitez-Llambay
- 2020 50M CPU hours in PRACE. Project: Simulating the evolution of galaxy populations at high resolution. Grant Holder: Joop Schaye
- 2019 3M CPU hours in DiRAC, UK. Project: Probing LCDM with dark galaxies. Grant Holder: Alejandro Benitez-Llambay
- 2018 40M CPU hours in PRACE. Project: EAGLE-XL: Simulating galaxy formation across the Universe. Grant Holder: Richard Bower

Research Operating Grants

- 2024-2026 18,000 €. UNIMIB FAQC-2024. Grant Holder: Alejandro Benitez-Llambay
- 2022-2024 186,000 €. European Commission.
- 2021-2023 17,000 €. UNIMIB FAQC-2021. Grant Holder: Alejandro Benitez-Llambay
- 2013 10,000 CAD. University of Victoria, Canada. Grand Holder: Alejandro Benitez-Llambay
- 2012 3,000 USD. Retama Foundation. Argentina

Service as External Reviewer

Major International Journals

Astronomy & Astrophysics (A&A).

Monthly Notices of the Royal Astronomical Society (MNRAS).

Astrophysical Journal (ApJ).

Physics of the Dark Universe.

Funding Agencies

Fondo para la Investigación Científica y Tecnológica (FONCyT; Argentina).

University Research Fellowship of the Royal Society (URF, UK).

Swiss National Science Foundation (SNSF; Switzerland).

Distributed Research Using Advance Computing (DiRAC; UK).

Research Visits

- 2019 University of Milano-Bicocca, Milano, Italy. Host: Prof. Michele Fumagalli
- 2019 Donostia International Physics Center, San Sebastian, Spain. Host: Dr Raul Angulo
- 2019 Leiden University, Leiden, Netherlands. Host: Prof. Joop Schaye
- 2019 University of Victoria, Canada. Host: Prof. Julio F. Navarro
- 2018 Kavli Institute for Theoretical Physics, US. Program: The Small Scale Structure of Cold Dark Matter
- 2014 Leibniz Institute for Astrophysics, Potsdam, Germany. Host: Dr Stefan Gottloeber
- 2013 Institute for Computational Cosmology, Durham, UK. Host: Prof. Carlos Frenk
- 2013 Max Plank Institute for Astronomy, Germany. Host: Prof. Laura Sales
- 2013 University of Victoria, Canada. Host: Prof. Julio F. Navarro

Select Invited Presentations and Seminars

- 2024 One More Year of BiCoQ: Status and Prospects, Milano, Italy, December 2024. Invited speaker: Constraining Dark Matter and Dark Energy with Astrophysical probes.
- 2024 SKA Cosmology HI Galaxies, Online, October 2024. Invited speaker: Dark galaxies as cosmological probes in the SKA era.
- 2024 Friend of Friends, Cordoba, Argentina, April 2024. Invited speaker: The recent discovery of a starless dark matter halo.
- 2023 University of Milano-Bicocca, Italy. Invited speaker: A Christmas Party: “4+1” questions and a toast.: ARMONIA: Dark matter and energy from astrophysics.
- 2022 Universidad Católica de Chile (PUC), Chile. Invited Colloquium: Understanding the Edge of Galaxy Formation: Dark and Late-forming galaxies.
- 2022 University of Milano-Bicocca, Italy. Invited Seminar: Dark and late-forming dwarf galaxies: Probing Λ CDM at the edge of galaxy formation.

- 2022 University of Helsinki, Physics Department, Finland. Invited Seminar: “Dark and late-forming dwarf galaxies: Probing Λ CDM at the edge of galaxy formation”.
- 2021 Heraeus Workshop, UK. Invited talk: “Dark and late-forming dwarf galaxies: Probing Λ CDM at the edge of galaxy formation”.
- 2020 Institute for Computational Cosmology. Durham, UK. Invited talk: Starless gaseous dark matter halos and the onset of galaxy formation.
- 2020 Ringberg Castle, Germany. Invited talk: Dark galaxies as cosmological probes: Is there a minimum halo mass for galaxies to form? (Postponed due to COVID-19 pandemic).
- 2020 The International Centre for Radio Astronomy Research, Australia. Invited seminar: “Dark galaxies: probing Λ CDM on unprecedented scales”.
- 2019 University of Milano-Bicocca. Invited talk: Probing Λ CDM on unprecedented small scales.
- 2019 DiRAC Science day 2019, Leicester, UK. Invited talk: Simulating the threshold of galaxy formation. ([Link](#))
- 2019 Donostia International Physics Center, San Sebastian, Spain. Invited talk: Probing Λ CDM on unprecedented scales
- 2019 Mock Cordoba, galaxy formation for gravity and cosmology, Cordoba, Argentina. Invited talk: Baryon-induced dark matter cores
- 2019 9th FoF meeting, Cordoba, Argentina. Invited talk: Starless low-mass dark matter halos: an unprecedented probe to Λ CDM.
- 2019 University of Leiden, Leiden, Netherlands. Invited seminar: Probing Λ CDM with “dark” galaxies
- 2019 University of Victoria, Victoria BC, Canada. Invited seminar: Probing Λ CDM with starless dark matter haloes
- 2018 Virgo meeting 2018, Lorentz Centre, Leiden, Netherlands. Invited talk: Visualization of cosmological simulations with py-sphviewer
- 2018 DiRAC Science day 2018, Swansea, UK. Invited talk: The impact of subgrid modeling on the structural properties of simulated galaxies
- 2018 KITP program “The Small Scale Structure of Cold Dark Matter”, Santa Bárabra, US. Invited blackboard talk: Starless low-mass dark matter halos ([Link](#)).
- 2017 Λ CDM, modified gravity or new dark matter models. Paris, France. Invited talk: MDAR in the context of Λ CDM.

Select Contributed Conference Talks

- 2024 SKA Cosmology SWG Meeting 2024, Nice, France, October 2024. Invited speaker: Dark galaxies as cosmological probes with SKA.
- 2024 Swiftcon 2024, Leiden, September 2024. Invited speaker: Non-explosive Early Feedback in COLIBRE.

- 2023 Fiat Lux, Castel Gandolfo, Italy, June 2023. Contributed talk: Understanding the onset of galaxy formation on small scales.
- 2019 Small Galaxies Cosmic Questions, Durham, UK, July 2019. Contributed talk: Probing Λ CDM with “dark” galaxies
- 2019 XV Durham-Edinburgh eXtragalactic Workshop, Edinburgh, UK, January 2019. Contributed talk: Baryon-induced dark matter cores in the EAGLE simulations
- 2018 Virgo Consortium workshop, Garching, Germany. December 2018. Contributed talk: Dark matter cores with the EAGLE code.
- 2018 Virgo Consortium workshop, Garching, Germany. December 2018. Contributed talk: The vertical scale height of galaxy discs in CMD.
- 2017 XIII Durham-Edinburgh eXtragalactic Workshop, Edinburgh, UK, January 2017. Contributed talk: RELHICs in the Local Group
- 2015 Virgo Consortium workshop, Leiden, Netherlands. December 2015. Contributed talk: Dwarf galaxies in the Local Group. December 2015
- 2015 5th Friend of Friends Meeting, Córdoba, Argentina. April 2015. Contributed talk: Mergers and the outside-in formation of Dwarf Spheroidals
- 2014 11th Thinkshop Potsdam: Satellites Galaxies and Dwarfs in the Local Group, Potsdam, Germany. September 2014. Contributed talk: The Imprint of Reionization on the Star Formation Histories of Dwarf Galaxies
- 2014 CLUES Workshop. Potsdam, Germany, August 2014. Contributed talk: Multiple Stellar components in Dwarf Galaxies
- 2014 4th Friend of Friends Meeting, Córdoba, Argentina. Contributed talk: Dwarf galaxies in the Local Group
- 2013 CLUES Workshop. La Cristalera, Spain, May 2013. Contributed talk: Learning from SFHs in the CLUES simulations
- 2012 2nd Friend of Friends Meeting, Córdoba, Argentina. April 2012, Contributed talk: The diversity of galaxies in the CLUES simulations
- 2011 1st Friend of Friends Meeting. Córdoba, Argentina. April 2011, Contributed talk: The gas accretion during the formation and evolution of galaxies.

Conferences Organized (LOC)

- 2023 Fiat Lux, Lighting up dark halos with galaxies, Castel Gandolfo, Italy. June 2022
- 2022 What Matters(s) around galaxies 2022, Italy. September 2022
- 2020 DiRAC day 2020, Durham, UK. September 2020.
- 2014 Annual Meeting of the Argentinian Astronomical Society, Córdoba, Argentina.
- 2011 VI Workshop of the Argentinian Astronomical Society: Computational Astronomy, March 2011, Córdoba, Argentina.

Public Outreach and Science Awareness

- 2024 **MUSA pilot project**, *Science Exhibit and teaching to primary school students*, Developer of the exhibit featuring “real-time” interaction with state-of-the-art cosmological numerical simulations, “real-time” gravity solver, and computer cluster using several raspberry-pi., Milano, Italy.
- 2024 **National University Day**, *Science Exhibit for general audience*, Developer of the exhibit featuring “real-time” interaction with state-of-the-art cosmological numerical simulations and virtual reality headset, Milano, Italy.
- 2023 **MUSA pilot project**, *Science Exhibit and teaching to primary school students*, Developer of the exhibit featuring “real-time” interaction with state-of-the-art cosmological numerical simulations, Milano, Italy.
- 2023 **Primavera in Bicocca (PNRR)**, *Science Exhibit for high-school students*, Developer of the exhibit, which featured “real-time” interaction of the students with cosmological numerical simulations and Virtual Reality content., Milano, Italy.
- 2022 **Bicocca Astrophysics Day**, *Science Exhibit and Outreach Conference. Developer of the Exhibit, featuring Virtual Reality content*, Milano, Italy.
- 2022 **Primavera in Bicocca (PNRR)**, *Science Exhibit for high-school students*, Developer of the exhibit, which featured “real-time” interaction of the students with cosmological numerical simulations., Milano, Italy.
- 2020 **Royal Society Summer Science Exhibition**, *Summer Science Online by the Royal Society: Ask the SpaceXperts*, Answering questions about Astronomy live on Youtube and Twitter, London, UK.
- 2016 **Royal Society Summer Exhibition**, *Collaboration with the “Galaxy Makers” exhibit*.
- 2015 **Argentinian National Academy of Science**, *The cosmological model and the origin of galaxies*, Invited talk, Córdoba, Argentina.
- 2015 **Pierre-Auger Observatory**, *Tecnópolis*, Invited talk and interactive exhibit, Buenos Aires, Argentina.
- 2015 **The connection between Music and Astronomy**, *Astronomical Observatory*, Invited talk, Córdoba, Argentina.
- 2011–2014 **Head of the Itinerant Telescope**, *Astronomical Observatory*, I Organized over 30 trips to rural places in Argentina to promote the inclusion of low-income and original communities. Visits included observations aided by the portable telescope and outreach talks..
- 2011–2013 **Olympiad of Astronomy**, *Argentina*, I was a member of the teacher’s team that trained high-school students to compete in the International Olympiad of Astronomy..
- 2009 **100 Hours of Astronomy**, *Argentina*, Collaboration with the event organized in the context of the International Year of Astronomy.
- 2007 **Argentinian Association Friends of Astronomy**, *Argentina*, Outreach article for the Magazine of the Association, aimed at amateur astronomers.

Software Development

- 2023–to date **GPU-MC-RT**, *Principal Developer*, GPU-powered Monte Carlo Radiative Transfer code tailored to understand the propagation of radiation during the formation of the first galaxies in the early Universe.
- 2021–to date **CosmoVR**, *Principal Developer*, Advanced real-time visualisation software for exploring and analysing numerical simulations. Uses Graphic-Processing-Units (GPUs), asynchronous parallelism and inter-process communication.
- 2017- to date **COLIBRE/SWIFT**, *Collaboration developer*, Parallel Nbody-SPH code of galaxy formation.
- 2013- to date **Py-SPHViewer**, *Principal Developer*, Massively parallel software for rendering Smoothed Particle Hydrodynamic simulations ([Link](#)).
- 2011 **FISA**, *Principal Developer*, Fast stellar spectra analyzer that carries out classification using regression and optimization techniques.

Skills

Programming languages: C,C++, Java, JavaScript, Fortran, Python, Julia, R.
Visualization: Matplotlib, Seaborn, Tableau.

Version control systems: SVN, GIT.

Data querying languages: SQL.

Parallel computing: OpenMPI, OpenMP, CUDA, pthreads.

Inter-process communication: Sockets.

Computer graphics: OpenGL, GLSL, CUDA.

Web Application Frameworks: Flask, Django.

Simulation codes: CLOUDY, GADGET-2, GADGET-3, AREPO, SWIFT, ENZO, RAMSES.

Languages

- Spanish Native Speaker
- English Fluent - Bilingual proficiency
- Italian Professional working proficiency

Academic Host

- 2024 Ms Valeria Cristiani (National University of Cordoba). December 2024
- 2024 Mr Bruno Martin Celiz (National University of Cordoba), July 2024
- 2024 Prof Julio Navarro (University of Victoria). May 2024
- 2024 Dr Victor Forouhar Moreno (Leiden University). February 2024
- 2022 Prof Carlos Frenk (Durham University). July 2022

Publications

As of December 2024, my publication record contains 32 refereed publications in major international journals with ~ 1700 citations. The number of citations corresponds to the numbers quoted by the Astrophysics Data System (ADS).

List of leading author publications

- **Benitez-Llambay** A., Dutta R., Fumgalli M. & Navarro J. F., 2024. *Examining the Nature of the Starless Dark Matter Halo Candidate Cloud-9 with Very Large Array Observations.* ApJ, 973, 61
- **Benitez-Llambay** A. & Navarro J. F., 2023. *Is the recently discovered HI cloud near M94 a starless dark matter halo?.* ApJ, 956, 1
- **Benitez-Llambay** A. & Fumagalli, 2021. *The Tail of Late-forming Dwarf Galaxies in Λ CDM.* ApJL, 921, L9
- **Benitez-Llambay** A. & Frenk C., 2020. *The detailed structure and the onset of galaxy formation in low-mass gaseous dark matter haloes,* MNRAS, 498, 4887
- **Benitez-Llambay** A., Frenk C., Ludlow A. & Navarro J., 2019. *Baryon-induced dark matter cores in the EAGLE simulations,* MNRAS, 488, 2387
- **Benitez-Llambay** A., Navarro J. F., Frenk C. S. & Ludlow A. D., 2018, *The vertical structure of galaxy discs in cold dark matter haloes.* MNRAS, 473, 1019
- **Benitez-Llambay** A., Navarro J. F., Frenk C. S., Sawala T., Oman K., Fattahi A., Schaller M., Schaye J., Crain R. & Theuns, T., 2017, *The properties of “dark” Λ CDM haloes in the Local Group.* MNRAS, 465, 3913
- **Benitez-Llambay** A., Navarro J. F., Abadi M. G., Gottlober, S., Yepes, G., Hoffman, Y.; & Steinmetz, M., 2016, *Mergers and the outside-in formation of dwarf spheroidals,* MNRAS 456, 1185
- **Benitez-Llambay** A., Navarro, J. F., Abadi, M. G., Gottlober, S., Yepes, G., Hoffman, Y. & Steinmetz, M., 2015, *The imprint of reionization on the star formation histories of dwarf galaxies.* MNRAS, 450, 4207
- **Benitez-Llambay** A., Claria J. J. & Piatti, A., 2012, *Fast Integrated Spectra Analyzer: A New Computational Tool for Age and Reddening Determination of Small Angular Diameter Open Clusters.* PASP, 912, 173

List of second and third author publications

- Keung Chan, T., **Benitez-Llambay** A., Theuns, T., Frenk, C. & Bower, R., 2023, *The impact and response of minihalos and the inter-halo medium on cosmic reionization,* (Submitted) arXiv:2305.04959
- Pereira-Wilson M., Navarro, J., **Benitez-Llambay** A. & Santos-Santos I. 2023, *The cosmic*

UV background and the beginning and end of star formation in simulated field dwarf galaxies, MNRAS, 519, 1425

- Herzog, G., **Benitez-Llambay A.** & Fumagalli, M., 2023, The present-day gas content of simulated field dwarf galaxies, MNRAS, 518, 6305
- Forouhar Moreno V., **Benitez-Llambay A.**, Cole S. & Frenk C., 2022, Galactic satellite systems in CDM, WDM and SIDM, MNRAS, 517, 5627
- Forouhar Moreno V., **Benitez-Llambay A.**, Cole S. & Frenk C., 2022, Baryon-driven decontraction in Milky Way mass haloes. MNRAS, 511, 3910
- Cautun, M., **Benitez-Llambay A.**, Deason A., Frenk C., et al. 2019. The Milky Way total mass profile as inferred from Gaia DR2. MNRAS, 494, 4291
- Genina A., Frenk C. S., **Benitez-Llambay A.**, Cole S., Navarro J. F., Oman K. & Fattahi A., 2019, The distinct stellar metallicity populations of simulated Local Group dwarfs, MNRAS, 488, 2312
- Genina, A., **Benitez-Llambay A.**, Frenk C. S., Cole S., Fattahi A., Navarro J., Oman K., Sawala T. & Theuns T., 2018. The core-cusp problem: a matter of perspective. MNRAS, 474, 1398
- Navarro, J. F., **Benitez-Llambay A.**, Fattahi A., Frenk C. S., Ludlow A. D., Oman K., Schaller M. & Theuns T., 2017, The origin of the mass discrepancy-acceleration relation in Λ CDM. MNRAS, 471, 1841
- Ludlow A. D., **Benitez-Llambay A.**, Schaller M., Theuns T., Frenk C. S., et al., 2017. The Mass Discrepancy Acceleration Relation: a natural outcome of galaxy formation in CDM halos. PhRvL, 118, 161103

List of publications I have contributed to

- Tornotti D., Fumagalli M., Fossati M., **Benitez-Llambay A.** et al., 2024, High-definition imaging of an extended filament connecting active quasars at cosmic noon, arXiv 2406.17035 (Nat. Astr. Accepted; in press)
- Forouhar Moreno, V, Fattahi A., Deason A., Henstridge F., **Benitez-Llambay A.**, 2024, The accreted stellar haloes of Milky Way-mass galaxies as a probe of the nature of the dark matter, arXiv 2407.05899 (Submitted MNRAS)
- Chaikin, E., Schaye J., Schaller M., **Benitez-Llambay A.**, Nobels F., Ploekinger S., 2023, A thermal-kinetic subgrid model for supernova feedback in simulations of galaxy formation, MNRAS, 523, 3709
- Roper F. A., Oman K. A., Frenk C. S., **Benitez-Llambay A.**, Navarro J. F., Santos-Santos I. M. E., 2023, The diversity of rotation curves of simulated galaxies with cusps and cores, MNRAS, 521, 1316.

- Santos-Santos I., Navarro J., Robertson A., **Benitez-Llambay A.**, et al, 2020, Baryonic clues to the puzzling diversity of dwarf galaxy rotation curves. MNRAS, 495, 58.
- Meadows N., Navarro J., Santos-Santos I., **Benitez-Llambay A.** & Frenk C. 2020, Cusp or core? Revisiting the globular cluster timing problem in Fornax. MNRAS 491, 3336
- Genina A., Read J., Frenk C., Cole S. **Benitez-Llambay A.**, Ludlow A., Navarro J., Oman K. & Robertson A. 2020, To beta or not to beta: can higher-order Jeans analysis break the mass-anisotropy degeneracy in simulated dwarfs? MNRAS, 498, 144
- Sykes, C., Fumagalli M., Cooke R., Theuns T. & **Benitez-Llambay A.**, Fluorescent rings in star-free dark matter haloes, 2019, MNRAS 487, 609
- Oman K., Marasco, A., Navarro J. F., Frenk C. S., Schaye J & **Benitez-Llambay A.**, Non-circular motions and the diversity of dwarf galaxy rotation curves, 2019, MNRAS, 482, 821
- Navarro J. F., Navarro, Julio F.; Yozin, Cameron; Loewen, Nic; **Benitez-Llambay, A.** et al., 2018, The innate origin of radial and vertical gradients in a simulated galaxy disc. MNRAS, 476, 3648
- Han J., Cole S., Frenk C. S., **Benitez-Llambay A.** & Helly J., 2018, HBT+: an improved cod for finding subhaloes and building merger trees in cosmological simulations. MNRAS, 474, 604
- Minniti, J. H., Ahumada, A. V., Claria, J. J., **Benitez-Llambay, A.**, 2014, Reddening and age of six poorly studied star clusters of the Large Magellanic Cloud derived from integrated spectra. A&A, 565, A49

List of Publications in Conference Proceedings

- Keung Chan T., **Benitez-Llambay A.**, Theuns T., Frenk C., 2023, Simulations of the reionization of the clumpy intergalactic medium with a novel particle-based two-moment radiative transfer scheme, Proceedings of the International Astronomical Union, 362, 15
- Abadi M. G., **Benitez-Llambay A.** & Ferrero I., 2014, The abundance of galaxies and dark matter halos in the Λ CDM Universe, RMxAC, 44, 73
- Minniti J. H, Ahumada A. V., Claria J. J. & **Benitez-Llambay A.**, 2014, Propiedades espectrales integradas de 27 cúmulos estelares concentrados pertenecientes a la Nube Mayor de Magallanes, BAAA, 56, 327
- **Benitez Llambay, A.** & Abadi, M. G., Las Galaxias Enanas y la Red Cósmica, 2012. BAAA 55, 245
- Minniti J. H., Ahumada A. V., Claria J. J., **Benitez-Llambay A.**, Oddone M. A., Bica E. & Santos J. F. C., 2012, Determinación de edades y enrojecimientos de cúmulos estelares pertenecientes a la Nube Mayor de Magallanes. BAAA, 55, 119

- Abadi M. G., **Benitez-Llambay A.** & Ferrero I., La abundancia de galaxias y halos de materia oscura en el universo CDM. 2012, BAAA, 56, 33
- Ahumada A. V.; **Benitez-Llambay A.**, Santos J. F. C., Claria J. J., Bica E. & Piatti A., 2011, Espectros integrados EFOSC2/NTT integrated spectroscopy of ten Magellanic Clouds' stellar clusters. RMxAC, 40, 264
- Ahumada A. V.; Benitez-Llambay A., Santos J. F. C., Claria J. J., Bica E. & Piatti A., 2011, Espectros integrados EFOSC2/NTT de 10 cumulos estelares pertenecientes a las Nubes de Magallanes. BAAA, 54 171
- **Benitez-Llambay A.**, Piatti A. E., Claria J. J., Palma, T. & Ahumada, A. V., Determinación espectroscópica de parámetros fundamentales de 18 cúmulos abiertos de pequeño diámetro angular, 2010. BAAA, 53, 16