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List of Publications
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Refereed Journals

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Preprints

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Invited Conference Contributions

- D. Nieto [CTA Consortium], *Dark matter searches in the very-high-energy gamma-ray band: can deep learning help?*, Cosmology 2018 in Dubrovnik, Dubrovnik, Croatia (October 2018).
- D. Nieto [CTA Consortium], *Machine learning in the Cherenkov Telescope Array*, New paths in data analysis and open data provision in Astronomy and Astroparticle Physics, Cambridge, United Kingdom (October 2018).
- D. Nieto [CTA Consortium], *Enhancing the sensitivity to dark matter signatures in the very-high-energy gamma-ray band through machine learning*, DM-Stat: Statistical Challenges in the Search for Dark Matter, Banff International Research Station, Canada (February 2018).

Conference Contributions

- D. Nieto et al., *CTLearn: Deep Learning for Gamma-ray Astronomy*, 36th International Cosmic Ray Conference, Madison (WI), U.S.A (July 2019).
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- A. Brill, [...], D. Nieto et al. *Investigating a Deep Learning Method to Analyze Images from Multiple Gamma-ray Telescopes*, Proceedings of the 2019 New York Scientific Data Summit (NYSDS), New York (2019).
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- D. Nieto *et al.*, *A search for dark matter subhalo candidates in the gamma-ray band* (poster), 13th International Conference on Topics in Astroparticle and Underground Physics Asilomar, California USA (September 2013).
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- D. Nieto and J. A. R. Cembranos, *Dark Matter: evidences, theories and searches* (talk), Dark Matter Awareness Week, Universidad Complutense de Madrid (2010).
- D. Nieto and N. Mirabal, *An X-Ray search for the sterile neutrino in Willman-1* (poster), IX Spanish Society of Astronomy Meeting, Madrid, Spain (2010).
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- C. Malagon, J. A. Barrio, D. Nieto, *Automatic image classification from Cherenkov telescopes using Bayesian ensemble of neural networks*, IEEE 3rd International Workshop on Soft Computing Applications, Szeged-Arad, Romania (2009).
- C. Malagon, J. A. Barrio, D. Nieto *et al.*, *Classification Methods for MAGIC Telescope Images on a Pixel-by-pixel base*, 30^{th} International Cosmic Ray Conference, **3** (2008) 1473-1476, Merida, Mexico. [inspirehep:1371375].
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- D. Nieto, *Constraining the total baryon number of the Universe with XMM-Newton high resolution spectra*, European Space Astronomy Center Trainee Symposium, Madrid, Spain (2006).

Internal CTA Contributions

- D. Nieto *et al.*, *Deep Learning CTA with TensorFlow*, Analysis and Simulations Working Group

Meeting, Barcelona, Spain (April 2018).

- D. Nieto *et al.*, *Deep Learning CTA*, CTA Consortium General Meeting, La Palma, Spain (November 2017).
- D. Nieto *et al.*, *pSCT panel-to-panel alignment system: status of the mirror panel edge sensors*, CTA-US Meeting, Tucson, USA (February 2016).
- D. Nieto *et al.*, *pSCT panel-to-panel alignment system: status of the mirror panel edge sensors*, CTA-US Meeting, Tucson, USA (August 2015).
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- D. Nieto *et al.*, *Medium-sized Schwarzschild-Couder telescope mechanical and optical systems: status update*, CTA Consortium General Meeting, Catania, Italy (September 2014).
- D. Nieto *et al.*, *pSCT panel-to-panel alignment system: status of the mirror panel edge sensors*, CTA-US Meeting, University of Minnesota, Minneapolis, USA (July 2014).
- D. Nieto *et al.*, *SCTs in Prod2: Preliminary Analyses*, CTA-US Meeting, University of Minnesota, Minneapolis, USA (July 2014).
- D. Nieto *et al.*, *Optical Structure Alignment System: Design, Prototyping and Procurement*, Schwarzschild-Couder Telescope Technical Review, Warsaw, Poland (September 2013).
- D. Nieto *et al.*, *pSCT panel-to-panel alignment system: status of the mirror panel edge sensors*, CTA-US Meeting, University of California Los Angeles, Los Angeles, USA (January 2013).
- D. Nieto, *Development of the pSCT mirror panel edge sensors*, CTA Consortium General Meeting, Chicago, USA (October 2012).
- D. Nieto *el al.*, *Analysis and availability of Hybrid-1 simulations*, CTA Consortium General Meeting, Rome, Italy (May 2012).
- D. Nieto, *Impact of dead space in the camera on trigger efficiency and effective area*, CTA Consortium General Meeting, Rome, Italy (May 2012).

Internal VERITAS Contributions

- D. Nieto, *The VERITAS dark matter program*, Fermi-VERITAS-HAWC Workshop, University of Utah, Salt Lake City, U.S.A. (April 2016).
- D. Nieto, *Observations of dark matter subhalo candidates: status update*, VERITAS Collaboration Meeting, Tucson, U.S.A. (February 2016).
- D. Nieto, *Observations of dark matter subhalo candidates: status update*, VERITAS Collaboration Meeting, National University of Ireland, Galway, Ireland (July 2015).
- D. Nieto, *Observations of dark matter subhalo candidates: status update*, VERITAS Collaboration Meeting, Tucson, USA (January 2015).
- D. Nieto, *Observations of dark matter subhalo candidates: a status report*, VERITAS Collaboration Meeting, University of Minnesota, Minneapolis, USA (July 2014).
- D. Nieto (presented by M. Errando), *Report on Dark Matter Searches in Unassociated Fermi Objects*, VERITAS Collaboration Meeting, DESY-Zeuthen, Germany (June 2013).
- D. Nieto, *Report on Dark Matter Searches in Unassociated Fermi Objects*, VERITAS Collaboration Meeting, Santa Cruz CA, USA (February 2013).

Internal MAGIC Contributions

- D. Nieto, *Report on the Unidentified Fermi Objects observations*, MAGIC Collaboration Meeting, Split (2010).
- D. Nieto, *Status of the On-Site Analysis*, MAGIC Collaboration Meeting, Split (2010).
- D. Nieto, *Introduction to the On-Site Analysis*, MAGIC Stereo Workshop, Dortmund (2010).
- D. Nieto, *Status of the On-Site Analysis*, MAGIC Collaboration Meeting, Munich (2010).
- I. Oya, D. Nieto *et al.*, *MAGIC On-Site Analysis Program*, MAGIC-TDAS **09-03** (2009).
- I. Oya, [...], D. Nieto *et al.*, *MAGIC Data Check Program*, MAGIC-TDAS **09-02** (2009).

Conferences, Workshops and Schools (as attendant)

- ESCAPE Kick-off Meeting, CNRS - Laboratoire d'Annecy de Physique des Particules, Annecy, France (February 2019).
- Halo Substructure and Dark Matter Searches Workshop, Instituto de Física Teórica - UAM/CSIC, Madrid, Spain (June 2018).
- ESAC Data Analysis and Statistics Workshop, European Space and Astronomy Centre, Madrid, Spain (November 2017).

- Second ASTERICS-OBELICS Workshop, Barcelona, Spain (October 2017).
- Ethics of Artificial Intelligence, New York University, New York, USA (October 2016).
- Data Science @ HEP, Simons Foundation, New York, USA (July 2016).

University Publications

- Ph.D. Thesis: *Dark matter constraints from high-energy astrophysical observations*, Universidad Complutense de Madrid, Spain (2012).
- M.S. Thesis: *Detection of TeV gamma-rays with MAGIC Telescope*, Universidad Complutense de Madrid, Spain (2006).
- Examenarbeit: *Demagnetization of shielding shells for the ESCA-Laser Laboratory*, Uppsala University, Sweden (2004).