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Current position:

Associate Professor (Profesor Agregado)
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Education

1996 (July) Diplôme de Baccalauréat Général en Sscientifique, Lycée La Condamine, Quito, Ecuador
2003 (August) Físico, Escuela Politécnica Nacional, Escuela de Ciencias, Departamento de Física, Quito, Ecuador
2008 (March) Master of Science in Fundamental Physics, Tokyo Institute of Technology, Physics Department, Tokyo, Japan
2011 (March) Doctor of Science in Fundamental Physics, Tokyo Institute of Technology, Physics Department, Tokyo, Japan

Awards:

March 2005-March 2011 Monbukagakusho scholarship for Master and Doctoral studies, The Ministry of Education, Culture, Sports, Science, and Technology (*MEXT*) of Japan
October 2011-October 2012 Investigador Prometeo, National Secretary of Education, Science and Technology of Ecuador, (SENESCYT)

Publications

Substructure spectral analysis of HETE2 burst GRB060115, N. Vasquez, N. Kawai, M. Arimoto, T. Shimokawabe, T. Ishimura et al., *GAMMA RAY BURSTS 2007: Proceedings of the Santa Fe Conference*. AIP Conference Proceedings, Volume 1000, pp. 150153 (2008)
GRB 091010: Suzaku WAM observation of the prompt emission, N. Vásquez et. al. On the behalf of Suzaku WAM team, *GRB Coordinates Network, Circular Service*, 1023, 1 (2009)
GRB 100119A: Suzaku WAM observation of the prompt emission, N. Vásquez et. al. On the behalf of Suzaku WAM team, *GRB Coordinates Network, Circular Service*, 10357, January (2010)

Time Variability and energy of long Gamma Ray Bursts, N. Vasquez and N. Kawai, DECIPHERING THE ANCIENT UNIVERSE WITH GAMMA RAY BURSTS. AIP Conference Proceedings, Volume 1279, pp. 454- 456 (2010)

Pulse Characterization of GRBs with Known Redshift I, N. Vasquez and N. Kawai, International Journal of Modern Physics D, Volume 19, Issue 06, pp. 997-1002 (2010)

Pulse characterization of long gamma ray bursts with known redshift II, N. Vasquez and N. Kawai, Physica E, Volume 43, Issue 3, p. 689-691, January (2011)

Classification of long Gamma Ray Bursts using cosmologically corrected temporal estimators, Nicolas A. Vasquez and Christian Vasconez, IAUS 279 Death of Massive Stars: Supernovae and Gamma Ray Bursts, Proceedings of the International Astronomical Union, Volume 7, Issue S279, pp. 417 September (2012) doi: 10.1017/S1743921312013622, Published online by Cambridge University Press 05 Sep 2012

Testing the bimodal distribution of the long gamma ray bursts in the cosmological rest frame, Vásconez Christian, Vásquez Nicolás, López Ericson, Vicente Kleber, Astrophysics from Antarctica, Proceedings of the International Astronomical Union, IAU Symposium, Volume 288, pp. 298 January (2013)

Implementing a WCD detector system in Riobamba (Ecuador) as part of the LAGO Project , Audelo M., Barahona D., Cadena P., Carrera E., Cazar D., Diaz M., Echeverría M., Orbe J., Recalde C., Súaes R., Tene T., Vásquez N., Zabala L., for the LAGO collaboration, 33rd International Cosmic Ray Conference, Rio de Janeiro, (2013)

Estudio temporal espectral del GRB061007, A. Baquero y N. Vásquez, Revista Politécnica N.32, vol. 3, pp.5254 September (2013)

Study of pulse structure of long GRBs: radiative mechanisms associations and geometry of the emission. J. Quirola & N. Vásquez. Proceedings of Gravitation, Astrophysics, and Cosmology II Argentinian Brazilian Meeting (GRACO II), Workshop Series of the Asociación Argentina de Astronomía, (2014)

Study of pulse structure and radiative mechanisms associations of long GRBs at $z \sim 1$, ~ J. Quirola & N. Vásquez., IAU Symposium, Volume 313, pp. 394-395, (2015)

LAGO Ecuador, Implementing a set of WCD detectors for Space Weather research: first results and further developments, S. Vargas, C. Mantilla, O. Martinez, N. Vásquez, D. Cazar for the LAGO collaboration, The 34th International Cosmic Ray Conference, (2015)

Time and spectral study of the internal structure of long Gamma Ray Bursts with z close to 1, J. Quirola & N. Vasquez, IAU General Assembly #29, (2015)

Alternative temporal classification of long Gamma Ray Bursts, N. Vasquez, A. Baquero, D. Andrade, IAU General Assembly #29, (2015)

Design, transport, and installation of autonomous Cherenkov detectors at high altitude, M. Calderon, N. Vasquez for the LAGO collaboration, IAU General Assembly #29, (2015)

Study of the internal structure of long GRBs with similar redshift, J. Quirola & N. Vasquez, TECCIENCIA, 2016

Implementation, calibration and operation of a Water Cherenkov Detector in a LAGO site at 0° latitude, S. Vargas, N. Vásquez et.al., 35th International Cosmic Ray Conferences, Proceedings, 2017

Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Conferences and events, Spectrometers, Detectors and Associated Equipment, 861, pp. 28-37(2017) Calibration of a large water-Cherenkov detector at the Sierra Negra site of LAGO, Galindo A. et. al.,

Monos después de la muerte en el cielo andino, C. Josefina Vásquez P. & Nicolás A. Vásquez P, Calidoscopio de experiencias en Astronomía Cultural, Viena (2018)
<http://sac.csic.es/astrosecundaria/es/cursos/formato/materiales/libro/calidoscopio.pdf>

Galactic Ambient of Host Galaxies of GRBs, July 2018, Proceedings of the International Astronomical Union 14(S344):228-229 DOI:[10.1017/S1743921318005422](https://doi.org/10.1017/S1743921318005422)

Calibration and operation of an autonomous Water Cherenkov Detector using Red Pitaya in Quito, C. Rosero, J. Cando, N. Vásquez*, A. Carabalí and D. Erazo, 2019, 36th International Cosmic Ray Conference, PoS406, <https://pos.sissa.it/358/406/pdf>

School and events

August 12-30, 2002: 26th IAU-UNESCO International School for Young Astronomers, El Leoncito, San Juan, Argentina Julio 725,

July 2003: Escuela de Verano: Métodos Geométricos y Topológicos en Teoría de Campos, Villa de Leyva, Colombia

December 2003: X ICFA School on Instrumentation in Elementary Particle Physics, Itacuruca, Brasil

5-6 de January: 2004 Congreso de Física Fundamental y Aplicada, Escuela Politécnica Nacional, Quito, Ecuador

9-30 July, 2004: XXXV Escuela Latinoamericana de Física, Supersymmetries in Physics and its Applications, México

13-17 March, 2006 : Asian Winter School on Numerical Astrophysics. Chiba University, Japan

20-31 August, 2012: XXVIII General Assembly of the IAU, Beijing, China

20-25 January 2014: III Escuela de Astropartículas en LAGO: Rayos Cósmicos, GRBs y Física Solar, Universidad San Francisco de Quito

27-29 January 2014: IX Encuentro de la Colaboración LAGO, Universidad San Francisco de Quito

12-14 November: III Astroparticle Physics Workshop: The Future in South America, Sao Paulo, Brasil

1-5 December 2014: IV Congreso Colombiano de Astronomía Y Astrofísica, Pasto Colombiano

17-18 December 2014: Congreso de la Sociedad Ecuatoriana de Física, Quito, Ecuador

3-14 August XXIX General Assembly of the IAU, Honolulu, USA

31 May – 10 June 2016: Fermi Summer School, Delaware, USA

22 Jun3 2016: Semarios de física y sus aplicaciones, Quito, Ecuador

3-7 October 2016: XV Latin American Regional IAU Meeting, Cartagena, Colombia

24 July -1 August, 2019, 36th International Cosmic Ray Conference, Madison, WI, U.S.A.

3-9 November, LARIM 2019: XVI Latin American Regional IAU Meeting, Antofagasta, Chile

Experience

2006 (March) – 2008 (Marzo): Akeno Telescope (50 cm) , Yamanashi, Japan.

2006 (March) – 2008 (March): Experimental Satellite HETE 2 (High Energy Transient Explorer 2).

2008 (March) – 2011 (March): Suzaku team, WAM detector (Wideband All sky Monitor).

2011 (August) – 2012 (October) Invited Professor, Escuela Politécnica Nacional, Physics Department

2011 September – 2012 September : Observatorio Astronómico de Quito, Prometeo Researcher.

2012 December - : Associate Professor, Physics Department, Escuela Politécnica Nacional

Courses taught

Undergraduate: Classical Mechanics I y II, Computational Physics I y II, Star Formation, Mathematical methods for physicists, Topics on galactic and extragalactic astrophysics

Master course in physics: Topics on observational astrophysics

Languages

Spanish: native

French : fluid

English: fluid

Japanese: Advanced

Memberships

Andean Regional Office of Astronomy for Development

<http://andean.astro4dev.org/>

8-12 December 2014: I Escuela Andina de Astronomía y Astrofísica, Quito, Ecuador (Chair)

Latin American Giant Observatory (LAGO project)

<http://lagoproject.org/>

Network for Astronomy School Education NASE-IAU
Since 2012, in charge of the NASE-IAU Ecuador courses
(<http://sac.csic.es/astrosecundaria/es/Presentacion.php>)

International Astronomical Union
<https://www.iau.org/administration/membership/individual/18782/>

Transient High Energy Sky and Early Universe Surveyor (THESEUS)
<https://www.isdc.unige.ch/theseus/contributing-scientists.html>

Organization of events

The 2015 CERN – Latin-American School of High-Energy Physics
Ibarra, Ecuador | 4 - 17 March 2015 (LOC member)

23-26 October 2012: *20 Curso internacional de Astronomía NASE-IAU*, Escuela Politécnica Nacional, Quito, Ecuador (Chair)

23-26 September 2013: *37 Curso internacional de Astronomía NASE-IAU*, Planetario del IGM, Quito, Ecuador(Chair)

6-19 June 2014: *50 Curso Internacional de Astronomía NASE-IAU*, Quito, Ecuador(Chair)

25-27 March 2015: *64 Curso Internacional de Astronomía NASE-IAU*, Cuenca, Ecuador(Chair)

4-8 April, 2016: *77 Curso Internacional de Astronomía y Astrofísica NASE-IAU*, Macas, Ecuador(Chair)

6-10 March 2017 *94 Curso Internacional de Astronomía y Astrofísica NASE-IAU*, Tena, Ecuador(Chair)

8-12 December 2014, *I Escuela Andina de Astronomía y Astrofísica*, Quito, Ecuador (Chair)

21 August – 1 September: *VII School on Cosmic Rays and Astrophysics*, Quito, Ecuador(Chair)
(<http://fisica.epn.edu.ec/VIICRA2017/>)

25-29 November 2019, XVI Encuentro de Física: Desafíos computacionales en la física contemporánea, Quito, Ecuador (<https://departamentodefisicaeventos.epn.edu.ec>)

Projects

Escuela Politécnica Nacional PIS1406

Construction of a muon telescope (Implementación de un telescopio de muones) (completed)

Escuela Politécnica Nacional PIS 1511

Data analysis of high energy astrophysics and development of Data Acquisition Systems

(Análisis de datos en astrofísica de alta energía y desarrollo de sistemas de adquisición de datos para detectores de astropartículas) (completed)

CEPRA XI: Creation on the ecuadorian network of astroparticles, cosmic rays and space weather - phase 2 (Creación de la Red Ecuatoriana de investigación en Astropartículas, Rayos Cósmicos y Clima Espacial - fase 2(<http://astroparticulas.cedia.org.ec/>))

References

Nobuyuki Kawai, Tokyo Institute of Technology, Tokyo ,Japan
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Oscar Martinez Bravo, Benemérita Universidad Autónoma de Puebla, Puebla, Mexico
moscar@gmail.com

Yoichi Yatsu, Tokyo Institute of Tecnology, Tokyo, Japan
yatsu@hp.phys.titech.ac.jp

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