

# CURRICULUM VITAE

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## DATOS PERSONALES

Genero: Masculino  
Fecha de Nacimiento: 23 de Enero 1976  
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## DATOS ACADEMICOS

01/2011 – a la fecha Investigador Instituto Nacional de Astrofísica Óptica y Electrónica, coordinación de Astrofísica

02/2010– 12/2010 Posdoc: Instituto Nacional de Astrofísica, Óptica y Electrónica, México.

01/2009–12/2009 Posdoc: Universidad Michoacana de San Nicolás de Hidalgo, Instituto de Físico-Matemáticas. México.

08/2006–12/2008 Posdoc: Universidad Autónoma de Puebla, Facultad de Ciencias Físico-matemáticas. México.

13/06/2006 Doctorado en el Instituto de Física de la Universidad Autónoma de San Luis Potosí, México. Tesis: *Observación de Bariones Doblemente Encantados en Varios Modos de Decaimiento*;  
Asesor: Dr. Jürgen Engelfried.

09/1995–02/2000 Licenciatura en Física en la Benemérita Universidad Autónoma de Puebla, México.

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## TÓPICOS DE INVESTIGACIÓN

- Rayos Cósmicos

- Astropartículas
- Instrumentación enfocada a Astropartículas y Física de Partículas
- Física de Neutrinos
- Espectroscopia de Hadrones

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## PUBLICACIONES

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### PUBLICADAS EN REVISTAS REFERADAS INTERNACIONALES

- “The HAWC Real-time Flare Monitor for Rapid Detection of Transient Events”, HAWC Collaboration, APJ 843 (2017) 116, DOI:10.3847/1538-4357/aa789f
- “Search for Very-high-energy Emission from Gamma-Ray Bursts Using the First 18 Months of Data from the HAWC Gamma-Ray Observatory”, HAWC Collaboration, APJ 843 (2017) 88, DOI:10.3847/1538-4357/aa756f
- “The 2HWC HAWC Observatory Gamma-Ray Catalog”, HAWC Collaboration, APJ 843 (2017) 40, DOI:10.3847/1538-4357/aa7556
- “Observation of the Crab Nebula with the HAWC Gamma-Ray Observatory”, HAWC Collaboration, APJ 843 (2017) 39, DOI:10.3847/1538-4357/aa7555
- “Search for Very High-energy Gamma Rays from the Northern Fermi Bubble Region with HAWC”, HAWC Collaboration, APJ 842 (2017) 85, DOI:10.3847/1538-4357/aa751a
- “Daily Monitoring of TeV Gamma-Ray Emission from Mrk 421, Mrk 501, and the Crab Nebula with HAWC”, HAWC Collaboration, APJ 841 (2017) 100, DOI:10.3847/1538-4357/aa729e
- “Search for TeV Gamma-Ray Emission from Point-like Sources in the Inner Galactic Plane with a Partial Configuration of the HAWC Observatory”, HAWC Collaboration, APJ 817 (2016) 3, DOI:10.3847/0004-637X/817/1/3
- “Milagro limits and HAWC sensitivity for the rate-density of evaporating Primordial Black Holes”, HAWC Collaboration, Astroparticle Physics 64 (2015) 4-12, DOI:10.1016/j.astropartphys.2014.10.007
- “VAMOS: A pathfinder for the HAWC gamma-ray observatory”, HAWC Collaboration, Astroparticle Physics 62 (2015) 125-133, DOI:10.1016/j.astropartphys.2014.08.004
- “Search for Gamma-Rays from the Unusually Bright GRB 130427A with the HAWC Gamma-Ray Observatory”, HAWC Collaboration, APJ 800 (2015) 78, DOI:10.1088/0004-637X/800/2/78

- “Sensitivity of HAWC to high-mass dark matter annihilations”, HAWC Collaboration, PRD 90 (2014) 122002, DOI:10.1103/PhysRevD.90.122002
- “Observation of Small-scale Anisotropy in the Arrival Direction Distribution of TeV Cosmic Rays with HAWC”, HAWC Collaboration, APJ 796 (2014) 108, DOI:10.1088/0004-637X/796/2/108
- “System for photomultiplier tubes characterization and data acquisition for water Cherenkov detectors”, Bonilla Rosales M. J., Carrasco. E, Torres. I, Moreno. E, Carramiñana. A. Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series 9154 (2014) 27, DOI:10.1117/12.2056589
- “SENSITIVITY OF THE HIGH ALTITUDE WATER CHERENKOV DETECTOR TO SOURCES OF MULTI-TeV GAMMA RAYS”, HAWC Collaboration. Astroparticle Physics, Vol 50-52, pag. 26-32 (2013)
- “Modeling ternary mixtures by mean-field theory of polyelectrolytes: Coupled Ginzburg-Landau and Swift-Hohenberg equations”, Morales, M. A., Rojas, J. F., Torres, I., Rubio, E.. Physica A, Volume 391, Issue 3, p. 779-791 (2012)
- “On the sensitivity of the HAWC observatory to gamma-ray bursts”, HAWC Collaboration. Astroparticle Physics, Volume 35, Issue 10, p. 641-650 (2012)
- “The Fluorescence Detector of the Pierre Auger Observatory”, P. Auger Collaboration. Nucl. Instr. and Methods A620 (2010) 227-251
- “A Study of the Effect of Molecular and Aerosol Conditions in the Atmosphere on Air Fluorescence Measurements at the Pierre Auger Observatory”. P. Auger Collaboration. Astroparticle Physics 33 (2010) 108-129
- “Erratum to “Atmospheric effects on extensive air showers observed with the surface detector of the Pierre Auger observatory P. Auger Collaboration. Astroparticle Physics 33 (2010) 65-67
- “Física Computacional: una propuesta educativa”, F. Rojas, M. Morales, A. Rangel, I. Torres. Revista Mexicana de Física. 55 (2009) 97-111
- “Nuclear Dependence of Charm Production”, A. Blanco-Covarrubias, J. Engelfried, et al. European Physical Journal C, Vol.64/4, pages 637-644 (2009)
- “Atmospheric effects on extensive air showers observed with the Surface Detector of the Pierre Auger Observatory”. P. Auger Collaboration. Astropart. Phys. 32 (2009), 89-99
- “Limit on the diffuse flux of ultrahigh energy tau neutrinos with the surface detector of the Pierre Auger Observatory”, P. Auger Collaboration. Physical Review D79 (2009), 102001 1-15.
- “Upper limit on the cosmic-ray photon fraction at EeV energies from the Pierre Auger Observatory”, P. Auger Collaboration. Astroparticle Physics 31 (2009), 399-406.

- “First Observation of the Cabibbo-suppressed Decays  $\Xi_c^+ \rightarrow \Sigma^+ \pi^- \pi^+$  and  $\Xi_c^+ \rightarrow \Sigma^- \pi^+ \pi^+$  and Measurement of their Branching Ratios.” Physics Letters B Volume 666, Issue 4, pp 299-304 (2008). Preprint UASLP-IF-08-001, Fermilab-Pub-08-084-E, arXiv:0804.2298.
- “Upper limit on the cosmic-ray photon flux above  $10^{19}$  eV using the surface detector of the Pierre Auger Observatory”. P. Auger Collaboration. Astropart. Phys. 29 (2008) 243-256. PA-07-023
- “Correlation of the highest-energy cosmic rays with the positions of nearby active galactic nuclei”. P. Auger Collaboration. Astropart. Phys. 29 (2008) 188-204. PA-07-022
- “Observation of the suppression of the flux of cosmic rays above  $4 \times 10^{19}$  eV”. P. Auger Collaborations. Phys. Rev. Lett. 101, 061101 (2008). PA-08-006
- “Upper limit on the diffuse flux of UHE tau neutrinos from the Pierre Auger Observatory”. P. Auger Collaboration. Phys. Rev. Letters 100 (2008) 211101. PA-07-024.
- “Confirmation of the Double Charm Baryon  $\Xi_{cc}^+$  via its Decay to  $pD^+K^-$ ”. SELEX Collaboration, A.Ocherashvili, M.A.Moinester, J.Russ, J.Engelfried, I.Torres, et al, Physics Letters B 628 (2005) 18-24.
- “Observation of a narrow charm-strange meson  $D_{sJ}^+(2632) \rightarrow D_s \eta$  and  $D^0 K^+$ ”. SELEX Collaboration, A.V.Evdokimov et al, Physical Review Letters 93, 242001 (2004).
- “Two RICH Detectors as Velocity Spectrometers in the CKM Experiment”, J. Engelfried, P.S. Cooper, A. Morelos, I. Torres, for the CKM Collaboration, Nuclear and Instruments and Methods A 502 (2003) 62-65.

## MEMORIAS

- “Stability and behavior of the outer array of small water Cherenkov detectors, outriggers, in the HAWC observatory”, T. Capistrán Rojas, I.D. Torres Aguilar, E. Moreno Barbosa and for the HAWC Collaboration, ICRC2017, PoS(ICRC2017)39
- “New gamma/hadron separation parameters for a neural network for HAWC”, Č. Bourbeau, T. Capistrán Rojas, I.D. Torres Aguilar, E. Moreno Barbosa and for the HAWC Collaboration, ICRC 2017, PoS(ICRC2017)394
- “Gamma/hadron separation in HAWC using neural networks”, Capistrán. T, Torres. I, Moreno. E., for the HAWC Collaboration, Ground-based and Airborne Instrumentation for Astronomy VI 9908 (2016) 990845, DOI:10.1117/12.2232041
- “Calibration and sensitivity of a large water-Cherenkov Detector at the Sierra Negra site of LAGO”, Galindo A, Moreno E, Carrasco E, Torres I, Carramiñana A. for the LAGO Collaboration, 34th International Cosmic Ray Conference, The Hague Netherland (2015), PoS(ICRC2015)673

- "Site development of the HAWC gamma-ray observatory in Sierra Negra", I. Torres. for the HAWC Collaboration, International Cosmic Ray Conference 9 (2011) 120, DOI: 10.7529/ICRC2011/V09/0912
- "Fundamental Measurements and Instrumentation CKM", J.Engelfried, J.Mata, I.Torres, E.Vasquez-Jauregui, AIP Conference Proceedings 623 Ed. Diaz-Cruz, Engelfried, Kirchbach, Mondragon, pp.369-372.

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## CITAS A ARTICULOS PUBLICADOS

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