

# Curriculum Vitae

## Contact information

Full name: Luis Armando Acosta Sánchez  
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Nacionality: Mexican  
Age: 30 years

## Education

03/2009-present Finishing PhD Thesis work on Nuclear Physics:  
*Study of the induced reactions by halo nuclei at  
energies around the Coulomb barrier.*  
Universidad de Huelva, (Spain)  
Supervisors: Prof. Ismael Martel Bravo and Prof.  
Francisco Pérez Bernal

12/2006 Diploma Thesis:  
*Study of the elastic scattering and reaction channels of  
 ${}^6\text{He}+{}^{208}\text{Pb}$  at 22 MeV*  
Universidad de Huelva, (Spain)  
Supervisors: Prof. Ismael Martel Bravo and Prof.  
Francisco Pérez Bernal

10/2004 Physics degree Thesis:  
*Elemental composition of  $\text{Si}_x\text{N}_y\text{H}_z/\text{Si}$  films produced  
with plasma techniques, using a particles accelerator.*  
Instituto de Física de la Universidad Nacional  
Autónoma de México (Mexico)  
Supervisor: Prof. Eduardo Andrade Ibarra.

12/2000 Social research service:  
*Measurement of temperatures using industrial resins  
over target plates used in a Pelletron Accelerator*  
Instituto de Física de la Universidad Nacional  
Autónoma de México (Mexico)  
Supervisor: Prof. Jorge Rickards Campbell.

8/1997-11/2002 University lectures period Physics degree.  
Universidad Nacional Autónoma de México (Mexico)

9/1994-6/1997 Technological High School  
Diploma: Digital Systems Technician

9/1991-6/1994	C.E.C.y.T No. 3 Estanislao Ramírez Ruiz, (Mexico) Secondary School, Public School Dr. Nabor Carrillo Flores (Mexico)
9/1985-6/1991	Elementary School, Public School Celerino Cano Palacio (Mexico)

## Professional Experience

5/2006-present	Researcher in formation staff XI Plan Propio de Investigación Universidad de Huelva (Spain)
1/2005-4/2006	Fellow assigned to research project Universidad de Huelva (Spain)
1/2004-12/2004	Lecturer in formation, Subprograma-121 Facultad de Química, Universidad Nacional Autónoma de México (Mexico)
4/2002-3/2004	Researcher assistant scholarship Sistema Nacional de Investigadores, SNI (Mexico)
1/2003-12/2003	Support for outstanding thesis grade Programa de Becas de Tesis de Licenciatura, PROBETEL (Mexico)

## Teaching Experience

9/2008-present	Lecturer of the course: “ <i>Physical foundations of the engineering</i> ” (practice) Escuela Politécnica Superior Universidad de Huelva (Spain)
1/2004-12/2004	Lecturer of the courses: “ <i>Kinematics and Dynamics</i> ” and “ <i>Electromagnetism</i> ” (practice and theory) Facultad de Química, Universidad Nacional Autónoma de México (Mexico)

## Publications in Refereed Journals

- Đ. Miljanić, L. Acosta, S. Blagus, M. Bogovac, M. Lattuada, M. Majer, M. Milin, A. Musumarra, L. Prepolec, N. Skukan, N. Soić, and M. Uroić:  
*Nuclear molecules in A=10 nuclei*  
Nucl. Phys. A **805** (2008) 233–235
- I. Mukha, L. Grigorenko, K. Sümmerer, L. Acosta, M.A.G. Álvarez, E. Casarejos, A. Chatillon, D. Cortina-Gil, J. Espino, A. Fomichev, J.E. García-Ramos, H. Geissel, J. Gómez-Camacho, J. Hofmann, O. Kiselev, A. Korshennikov, N. Kurz, Yu. Litvinov, I. Martel, C. Nociforo, W. Ott, M. Pfutzner, C. Rodríguez-Tajes, E. Roeckl, M. Stanoiu, H. Weick, and P.J. Woods:  
*Proton-proton correlations from  $^{19}\text{Mg}$  and  $^{16}\text{Ne}$*

3. I. Mukha, K. Sümmerer, L. Acosta, M.A.G. Álvarez, E. Casarejos, A. Chatillon, D. Cortina-Gil, J. Espino, A. Fomichev, J. E. García-Ramos, H. Geissel, J. Gómez-Camacho, L. Grigorenko, J. Hoffmann, O. Kiselev, A. Korshennikov, N. Kurz, Yu. Litvinov, I. Martel, C. Nociforo, W. Ott, M. Pfutzner, C. Rodríguez-Tajes, E. Roeckl, M. Stanoiu, H. Weick, and P.J. Woods:  
*Observation of two-proton radioactivity of  $^{19}\text{Mg}$  by tracking the decay products*  
Physical Review Letters, **99** (2007) 182501 1–5
4. M. Milin, A. Maggio, L. Acosta, M.A.G. Alvarez, C. Angulo, E. Casarejos, N. de Séréville, A. Di Pietro, P. Figuera, M. Fisichella, M. Freer, Th. Keutgen, M. Lattuada, M. Majer, I. Martel, Đ. Miljanić, F. Pansini, D. Price, A.M. Sánchez-Benítez, N. Soić, M. Uroić, and M. Zadro:  
*Reactions induced by 35 MeV  $^6\text{He}$  beam on  $^{12}\text{C}$  and  $^{14}\text{C}$ .*  
Eur. Phys. J. ST, **150** (2007) 43–46
5. P. Bednarczyk, E. Berdermann, J. Gerl, M. Górská I. Kojouharov, M. Pomorski, M. Rebisz, B. Voss, L. Acosta, R. Berjillos, I. Martel, M.A.G. Alvarez, J.M. Espino, J.L. Flores, I. Mukha, and R. Wolski:  
*Application of diamond detectors in tracking of heavy ion slowed down radioactive beams*  
Act. Phys. Pol. B **249** 4 (2007) 1293–1296
6. G. Murillo, E. Andrade, J.C. Alonso, L. Acosta, M.F. Rocha, E.P. Zavala, and R. Policroniades:  
*Concentration and depth profiles of elements in  $\text{Si}_x\text{N}_y\text{H}_z/\text{Si}$  thin films produced by PECVD*  
Nucl. Instr. Meth. Phys. Res. B, **249** (2006) 417–420
7. E. Andrade, G. Murillo, R. Policroniades, L. Acosta, E.P. Zavala, M.F. Rocha, and S.A. Centeno:  
*IBA analysis of some precolumbian gilded copper samples*  
Nucl. Instr. Meth. Phys. Res. B **240** (2005) 570–575

## **Publications in Refereed Conference Proceedings**

1. L. Acosta, D. Escrig, D. Galaviz, M. Sánchez-Benítez, C. Angulo, M.A.G. Álvarez, M.V. Andrés, M.J.G. Borge, E. Casarejos, J.M. Espino, J.E. García-Ramos, J. Gómez-Camacho, I. Martel, A.M. Moro, I. Mukha, F. Pérez-Bernal, D. Rodríguez, K. Rusek, and O. Tengblad  
*Near-barrier scattering of  $^6\text{He}$  and  $^{11}\text{Be}$*   
Frontiers in nuclear structure, astrophysics, and reactions FINUSTAR 2  
Crete, Greece 10-14 September 2007

## Posters presented in international conferences.

1. L. Acosta, M.J.G. Borge, D. Galaviz, J. Gómez-Camacho, I. Martel, A.M. Moro, K. Rusek, A.M. Sánchez-Benítez and O. Tengblad for the IS444 Collaboration.  
*Scattering of  $^{11}\text{Be}$  at energies around the barrier*  
The Fifth International Conference on Exotic Nuclei and Atomic Masses (ENAM) September 7 – 13 2008 Ryn, Poland
2. L. Acosta, C. Angulo, M.A.G. Álvarez, M.V. Andrés, M.J.G. Borge, E. Casarejos, D. Escrig, J.M Espino, D. Galaviz, J.E. García-Ramos, J. Gómez-Camacho, I. Martel, A.M. Moro, Ivan Mukha, F. Pérez-Bernal, D. Rodriguez, K. Rusek, A.M. Sánchez-Benítez and O. Tengblad  
*Near-barrier scattering of halo nuclei*  
XXXI Symposium on Nuclear Physics  
7-10 January 2008 Cocoyoc Mexico
3. L. Acosta, M.A.G. Álvarez, A.M. Sánchez-Benítez, K. Rusek, A.M. Moro, D. Escrig, M.V. Andrés, C. Angulo, M.J.G. Borge, E. Casarejos, J.M Espino, M. Freer, H.O.U. Fynbo, J.E. García-Ramos, J. Gómez-Camacho, O.R. Kakuee, I. Martel, F. Pérez-Bernal, R. Raabe, J. Rahighi, O. Tengblad and P. Van Duppen for the PH215 Collaboration.  
*Angular distributions of elastic and break-up reactions in the scattering of  $^6\text{He}$  on  $^{208}\text{Pb}$  at 22 MeV*  
Zacopane Conference on Nuclear Physics  
4-10 September 2006 Zacopane, Poland
4. L. Acosta, M.A.G. Alvarez, I. Martel, F. Pérez-Bernal, K. Rusek, A.M. Sánchez-Benítez, for the PH215 Collaboration.  
*Study of the elastic and reaction channels in the scattering of  $^6\text{He} + ^{208}\text{Pb}$  at 22 MeV*  
XVth Colloque GANIL 2006  
May 29th to June 2nd 2006 Giens, France
5. G. Murillo, E. Andrade, J.C. Alonso, L. Acosta, M.F. Rocha, E.P. Zavala, E.R. Policroniades  
*Element concentration and depth profiles of  $\text{Si}_x\text{N}_y\text{H}_z/\text{Si}$  thin films produced by PECVD*  
XVII International Conference on Ion Beam Analysis  
26-30 June 2005 Sevilla, Spain

## Talks in conferences

1. Euro Summer School on Exotic Beams. Oral contribution. Trento, Italy 11-15 september 2006
2. XXXI Reunión Bienal de la Real Sociedad Española de Física. Oral contribution. Granada, Spain 10-14 September

## Research Projects

- Física e instrumentación de núcleos radiactivos  
Spanish Education and Science Administration. Ref. Number. FPA2007-63074  
PI: Ismael Martel Bravo  
Period: 2007-2010

## Skills and Language

From 2002 to 2004 constant work analyzing several materials using nuclear techniques like RBS, NRA and PIXE at IF-UNAM (Mexico).

Since 2005, constant participation in experiments related with nuclear reaction using stable and radioactive beams at different international facilities: REX-ISOLDE CERN, (Switzerland), GSI (Germany), CRC-LLN (Belgium), Ruđer Bošković Institute (Croatia), TRIUMF (Canada), CNA (Spain) and CMAM (Spain). Work in FRESCO simulation program at IPJ (Poland).

Experience in the vacuum system operation, mechanics and electronics of experimental setups related with nuclear experiments. Silicon detectors handling and Data-Acquisition systems.

*Programming/Computer language:* FORTRAN, (C++ notions).

*Analysis programs:* SIMNRA, Nuclear-Data-Furnace, PAW++, FRESCO, GO4, (ROOT and GEANT4 notions).

*Operating system:* GNU-Linux, Windows XP and Vista

*Languages:*

1. Spanish, natural language
2. English, high level written and spoken
3. French, medium level written and spoken

## References

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69, Hoża str., 00-681  
Warsaw, Poland
- Eduardo Andrade  
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