

# Remigio Cabrera-Trujillo

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## Research interest

General	Atomic, Molecular, and Optical Physics (AMO)
Specific/Recent	Atomic and Molecular collisions Matter waves propagation in bends and straights Charge exchange enhancement in an intense laser field Molecular fragmentation in collisions. Differential cross section (scattering theory) Energy deposition in collision processes

## Highlights of Scientific Accomplishments

- (1) Developed theory to incorporate the projectile electronic structure into the Bethe theory of stopping (energy deposition)
- (2) Developed theory to incorporate interference effects in the differential cross section due to the classical trajectory approximation into the quantum chemistry Electron-Nuclear Dynamics (END) theory. The END theory treats the dynamics of a multi-electron and nuclei system simultaneously.
- (3) Developed and implemented code for scattering processes into the high performance computing ENDyne program, which implements the END theory.
- (4) Prediction of a threshold effect at low projectile collision energies in energy deposition problems as a consequence of the quantization of energy transfer in the collision.
- (5) Calculation of absolute direct and charge transfer differential cross sections for multi-electron atomic and molecular systems with excellent agreement with the experiment.

## Education

1994-1998 Ph.D. in Sciences (Physics): Universidad Autonoma Metropolitana, Physics Department, Mexico City, April 29th, 1998; (Sandwich Ph. D. with Odense University, Denmark; now University of Southern Denmark)

1991-1994 M. Sc. in Physics: Universidad Autónoma Metropolitana, Physics Department, Mexico City, June 17th.

1987-1991 B.A. in Physics: Universidad Autónoma Metropolitana, Physics Department, Mexico City.

## Academic and Professional positions

1/2006-Present	Adjunct Assistant Professor	Department of Physics, University of Florida
11/2004-12/2005	Research Associate	Department of Physics, Kansas State University.
2002-2004	Adjunct Research Scientist	Department of Physics, University of Florida.
1999-2002	Postdoctoral Fellow	Department of Physics, University of Florida.
1997-1999	Lecturer	Physics Department of the Universidad Autónoma Metropolitana, Mexico City.
1995-1997	Visiting Ph.D.	University of Southern Denmark, Odense Denmark.
1994-1995	Lecturer	Physics Department of the Universidad Autónoma Metropolitana, Mexico City.
1990 - 1994	Teaching Assistant "A"	Physics Department of the Universidad Autónoma Metropolitana, Mexico City.

## Grants received

- Co-PI in the research project "Theoretical Study of the Chemical Bond Effects on the Stopping Power of Heavy Ions incident on Polymers". Supported in 1998-1999 by CONACyT. Grant No. 0494-E9108.

## Honors, Awards, and Memberships

2004	AGEP Postdoctoral travel award by AAAS.
2003	Service Award from the Alachua Astronomy Club, Inc.
Since 2003	Who's Who in America
Since 2001	Member of the American Association for the Advancement of Science (AAAS).
Since 1999	Member of the American Physical Society (APS).
1998	University merit medal for the best grades in the Ph. D. degree (magna cum laude). Universidad Autonoma Metropolitana, Mexico City.
1992	University merit medal for the best grades in the B.A. (magna cum laude). Universidad Autonoma Metropolitana, Mexico City.

## Selected List of Significant Publications

1. B. J. Killian, **R. Cabrera-Trujillo**, E. Deumens, and Y. Öhrn, "Resonant charge transfer between protons and hydrogen atoms from 1 to 5000 eV collisions energies", J. Phys. **B37**, 4733 (2004).
2. **R. Cabrera-Trujillo**, John R. Sabin, Y. Öhrn and E. Deumens, "Charge exchange and threshold effect in the energy loss of slow projectiles", Phys. Rev. Letters **84**, 5300 (2000).

3. **R. Cabrera-Trujillo**, J.R. Sabin, Y. Öhrn, and E. Deumens,  
“*Direct Differential Cross Section Calculations for Ion-Atom and Atom-Atom Collisions in the keV Range*”,  
Phys. Rev. A **61**, 032719 (2000).
4. **R. Cabrera-Trujillo**, S. A. Cruz, Jens Oddershede and John R. Sabin.  
“*Bethe theory of stopping incorporating electronic excitations of partially stripped projectiles*,”  
Phys. Rev. **A55**, 2864 (1997).

## Complete List of Published Articles in Refereed Journals

1. J. Oddershede, J. R. Sabin, and R. Cabrera-Trujillo,  
“*Comparison of shell corrections in the Bohr and Bethe formulations of stopping power*”,  
Nucl. Instr. and Meth. **B 241**, 144 (2005).
2. R. Cabrera-Trujillo, S. A. Cruz, and J. Soullard,  
“*From the Orbital Implementation of the Kinetic Theory to the Polarization Propagator Method in the Study of Energy Deposition Problems*”,  
Adv. Quantum Chem. **48**, 335 (2005).
3. R. Cabrera-Trujillo, J. R. Sabin, E. Deumens, and Y. Öhrn,  
“*Orientational effects in energy deposition by protons in water*”,  
Adv. Quantum Chem. **48**, 47 (2005).
4. R. Cabrera-Trujillo, J. R. Sabin, E. Deumens, and Y. Öhrn,  
“*Prediction of the Energy Dependence of Molecular Fragmentation Cross Sections for Collisions of Swift Protons with Ethane and Acetylene*”,  
Phys. Rev. **A71**, 044702 (2005)
5. R. Cabrera-Trujillo, J. R. Sabin, Y. Ohrn, E. Deumens,  
“*Stopping at swift antiprotons by hydrogen atoms and the Barkas correction*”,  
Phys. Rev. **A71**, 012901 (2005).
6. B. J. Killian, R. Cabrera-Trujillo, E. Deumens, and Y. Öhrn,  
“*Resonant charge transfer between protons and hydrogen atoms from 1 to 5000 eV collisions energies*”,  
J. Phys. **B37**, 4733 (2004).
7. R. Cabrera-Trujillo, Y. Öhrn, E. Deumens, J. R. Sabin, and B. Lindsay,  
“*Absolute differential and total cross sections for direct and charge-transfer scattering of keV protons by O<sub>2</sub>*”,  
Phys. Rev. **A70**, 042705 (2004).
8. R. Cabrera-Trujillo, Y. Öhrn, E. Deumens, and J. R. Sabin,  
“*Application of the END theory to the  $H + D_2 \rightarrow HD + H$  Reaction*”, J. Phys. Chem. **A108**, 8935, (2004).
9. R. Cabrera-Trujillo, John. R. Sabin, E. Deumens, and Y. Öhrn,  
“*Calculation of Cross Sections in Electron-Nuclear Dynamics*”,  
Advances in Quantum Chemistry, **47**, 253, (2004).
10. R. Cabrera-Trujillo, J. R. Sabin, J. Oddershede,  
“*Molecular Stopping Powers from the Target Oscillator Strength Distribution*”,  
Advances in Quantum Chemistry, **46**, 99, (2004).
11. R. Cabrera-Trujillo, John. R. Sabin, E. Deumens, and Y. Öhrn,  
“*Dynamical processes in stopping cross sections*”,  
Advances in Quantum Chemistry, **45**, 99, (2004).
12. R. Cabrera-Trujillo, John. R. Sabin, E. Deumens, and Y. Öhrn,  
“*The theory and computation of energy deposition properties*”,  
Advances in Quantum Chemistry, **45**, 1, (2004).

13. R. Cabrera-Trujillo, J. R. Sabin, J. Oddershede,  
 “*Explanation of observed trend in the mean excitation energy of a target when determined using several projectiles*”,  
 Phys. Rev. **A68**, 042902, (2003).
14. R. Cabrera-Trujillo, P. Apell, J. Oddershede, J. R. Sabin,  
 “*Why does the maximum in the stopping cross section for protons occur at approximately 100 keV most of the time?*”,  
 Application of Accelerators in Research and Industry (CAARI): Seventeenth International Conference, **680**, 86  
 (2003).
15. R. Cabrera-Trujillo, J. R. Sabin, Y. Öhrn, E. Deumens,  
 “*Case for projectile kinetic energy gain in stopping power studies*”,  
 Int. J. Quantum Chemistry, **94**, 215 (2003).
16. R. Cabrera-Trujillo, J. R. Sabin, Y. Öhrn, E. Deumens,  
 “*Energy loss studies of protons colliding with ethane: Preliminary results*”,  
 J. Electron Spectroscopy, **129**, 303 (2003).
17. R. Cabrera-Trujillo, Y. Öhrn, E. Deumens, J. R. Sabin, and B. G. Lindsay,  
 “*Theoretical and experimental studies of the  $H^+ - N_2$  system: Differential cross sections for direct and charge-transfer scattering at keV energies*”,  
 Phys. Rev. A, **66**, 042712 (2002).
18. R. Cabrera-Trujillo, J. R. Sabin, E. Deumens, and Y. Öhrn,  
 “*Stopping Cross Sections for  $N^{4+} \rightarrow H$  at Low Projectile Velocity*”,  
 Phys. Rev. A, **66**, 022706 (2002).
19. S. A. Malinovskaya, R. Cabrera-Trujillo, J. R. Sabin, E. Deumens, and Y. Öhrn,  
 “*Dynamics of proton-acetylene collisions at 30 eV*”,  
 J. Chem. Phys. **117**, 1103 (2002).
20. R. Cabrera-Trujillo, Y. Öhrn, E. Deumens, J. R. Sabin,  
 “*Trajectory and molecular binding effects in stopping cross sections for hydrogen beams on  $H_2$* ”,  
 J. Chem. Phys. **116**, 2783 (2002).
21. R. Cabrera-Trujillo, Y. Öhrn, John. R. Sabin, and E. Deumens,  
 “*Molecular target and projectile angular scattering effects in stopping power and charge exchange at low to intermediate projectile energies*”,  
 Phys. Rev. **A**, **65**, 024901 (2002).
22. R. Cabrera-Trujillo, J.R. Sabin, E. Deumens and Y. Öhrn,  
 “*Stopping cross section and charge exchange study on the  $He^+ \rightarrow Ne$  system*”,  
 Application of accelerators in research and industry: Sixteenth International Conference. AIP Conference Proceedings **576**, 3 (2000).
23. R. Cabrera-Trujillo, Y. Öhrn, E. Deumens, and J.R. Sabin,  
 “*Stopping cross section in the low- to intermediate-energy range: Study of proton and hydrogen atom collisions with atomic N, O, and F*”,  
 Phys. Rev. A **62**, 052714 (2000).
24. S.P. Apell, R. Cabrera-Trujillo, J. Oddershede, S.B. Trickey, J.R. Sabin,  
 “*Effect of shape on molecular directional Compton profiles*”,  
 J. Mol. Struct. (THEOCHEM) **527**, 157 (2000).
25. R. Cabrera-Trujillo, E. Deumens, Y. Öhrn and J. R. Sabin,  
 “*Impact parameter dependence of electronic and nuclear energy loss of swift ions:  $H^+ \rightarrow He$  and  $H^+ \rightarrow H$* ”,  
 Nucl. Instr. and Meth. **B168**, 484 (2000).
26. R. Cabrera-Trujillo, John R. Sabin, Y. Öhrn and E. Deumens,  
 “*Charge exchange and threshold effect in the energy loss of slow projectiles*”,  
 Phys. Rev. Letters **84**, 5300 (2000).

27. R. Cabrera-Trujillo, J.R. Sabin, Y. Öhrn, and E. Deumens,  
“*Direct Differential Cross Section Calculations for Ion-Atom and Atom-Atom Collisions in the keV Range*”,  
Phys. Rev. A **61**, 032719 (2000).
28. R. Cabrera-Trujillo,  
“*Stopping power in the independent-particle model: Harmonic oscillator results*”,  
Phys. Rev. A **60**, 3044 (1999).
29. R. Cabrera-Trujillo, John R. Sabin, J. Oddershede, and Stephan P. A. Sauer,  
“*The Bethe sum rule and basis set selection in the calculation of Generalized Oscillator Strengths*”,  
Advances in Quantum Chemistry **35**, 175 (1999).
30. R. Cabrera-Trujillo,  
“*Projectile isotope effects on stopping power: Harmonic Oscillator approach.*”,  
Nucl. Instr. and Meth. **B 149**, 228 (1999).
31. R. Cabrera-Trujillo, John R. Sabin, Y. Öhrn and J. Oddershede ,  
“*Oscillator Strength Sum Rules with an External Electromagnetic Field*”,  
Phys. Rev. **A57**, 3115 (1998).
32. R. Cabrera-Trujillo, S. A. Cruz, Jens Oddershede and John R. Sabin.  
“*Bethe theory of stopping incorporating electronic excitations of partially stripped projectiles,*”  
Phys. Rev. **A55**, 2864 (1997).
33. R. Cabrera-Trujillo, S. A. Cruz and J. Soullard.  
“*Bond stopping cross sections for protons incidents on molecular targets within the OLPA/FSGO implementation of the kinetic theory.*”  
Nucl. Instr. and Meth. **B93**, 166 (1994).
34. J. Soullard, S. A. Cruz and R. Cabrera-Trujillo.  
“*Chemical effects on the low-energy electronic stopping power of Li and He ions on saturated alcohols, ethers and amines.*”  
Nucl. Instr. and Meth. **B80/81**, 20 (1993).
35. S. A. Cruz, J. Soullard and R. Cabrera-Trujillo.  
“*Firsov approach to chemical bond effects on the low energy electronic stopping power of heavy ions*”.  
Nucl. Instr. and Meth. **B83**, 5 (1993).

## Manuscripts Under Review

1. Fatima Anis, V. Roudnev, R. Cabrera-Trujillo, and B. D. Esry,  
“*Laser assisted charge transfer in  $He^{2+} \rightarrow H$  collisions*”,  
Phys. Rev. A (submitted) (2005).
2. R. Cabrera-Trujillo and B. D. Esry,  
“*Protonium formation in collisions of Anti-protons with atomic and molecular Hydrogen: A semiclassical study*”,  
Phys. Rev. A (submitted) (2005).
3. A. M. Sayler, M. Leonard, K. D. Carnes, R. Cabrera-Trujillo, and B. D. Esry, and I. Ben-Itzhak  
“*Preference for breaking the O – H bond over the O – D bond following HDO ionization by fast ions*”,  
J. Phys. B. (submitted) (2005).

## Manuscripts in Preparation

1. A. M. Sayler, Q. Q. Wang, J. F. Xiz, M. A. Smith, R. Cabrera-Trujillo, K. D. Carnes, B. D. Esry, and I. Ben-Itzhak,  
“*Dissociation of  $O_2^+$  in the presence of a Ultrashort intense Laser pulse*”,  
Phys. Rev. A (to be submitted) (2005).

2. R. Cabrera-Trujillo and B. D. Esry,  
 “Enhancement of charge exchange processes in collision of  $He^{2+} \rightarrow H_2$  in the presence of a laser field”,  
 Phys. Rev. A (to be submitted) (2005).
3. Z. D. Pesic, P. Sobocinski, R. Hellhammer, N. Stolterfoht, R. Cabrera-Trujillo, Y. Öhrn, E. Deumens, and J. R. Sabin,  
 “Fragmentation of  $H_2O$  in collisions with  $He^{2+}$  ion at keV energies”, Phys. Rev. A (to be submitted) (2005)

## Books Reviewed

1. L. M. Diaz-Rivera and R. Cabrera-Trujillo, ”Numerical and Analytical Methods for Scientist and Engineers using Mathematica” by Daniel Dubin, John Wiley & Sons, New Jersey 2003. Int. J. Quantum Chemistry **97**, 1012, (2004).

## Other publications

1. Remi Trujillo, “Object real size and distance through a telescope”, *Amateur Astronomy*, **46**, 33 (2005).
2. Remigio Trujillo, “My little obsession: a 4.25” scope”, *Amateur Astronomy*, **42**, 22 (2004).

## Conferences, Workshops, Meetings, and Schools

June 2005	“Many-body bound states in waveguide bends and straights”, Work presented at the Atomic Physics section of the Gordon Conference, Tilton, New Hampshire.
May 2005	“ $O_2^+$ dissociation caused by an ultrashort intense laser pulse”, Work presented at the Division of Atomic, Molecular, and Optical Physics of the APS, Lincoln, Nebraska.
May 2005	“Many-body bound states in waveguide bends”, Work presented at the Division of Atomic, Molecular, and Optical Physics of the APS, Lincoln, Nebraska.
May 2005	“Semiclassical treatment of $\bar{p}p$ formation in $\bar{p} \rightarrow H$ and $\bar{p} \rightarrow H_2$ collisions”, Work presented at the Division of Atomic, Molecular, and Optical Physics of the APS, Lincoln, Nebraska.
April 2005	”Preliminary Study of Fragmentation of $H_2O$ in collisions with $N^{7+}$ at 1 meV/amu”, Work presented at the 25th Brand-Ritchie Workshop on penetration phenomena and Excitation of solids, University of Florida, Gainesville3, FL.
October 2004	Minority Postdoctoral Summit, Sponsored by AAAS, Austin, Texas,
October 2004	SACNAS 2004 (Society for Advancement of Chicanos and Native Americans in Science), Austin, Texas.
October 2004	First Hispanic Graduate Student Association Symposium, University of Florida, Gainesville.
May 2004	“Electron-Nuclear Dynamics of atomic and molecular collisions: Charge exchange and energy loss”, Work presented at the Division of Atomic, Molecular, and Optical Physics of the APS, Tucson, Arizona,
February 2004	“Time-dependent collisions of $H^+$ with $O_2$ ”, Work presented at the 44st Sanibel Symposium.
June 2003	“Atomic and Molecular Collisions: Electron-Nuclear Dynamics approach”, Work presented at the Atomic Physics section of the Gordon Conference, Tilton, New Hampshire.
February 2003	“Atomic and Molecular collisions a la END”, Work presented at the 43st Sanibel Symposium.

## Continued ...

November 2002	“Time-dependent Electron-Nuclear Dynamics studies of energy loss and scattering processes”, Work presented in CAARI 2002, University of North Texas, Denton, TX,
June 2002	“Time-dependent analysis of ion-atom and ion-molecule scattering processes: Electron-Nuclear Dynamics ”. Talk presented at the Florida International University Physics Department.
February 2002	“Electrons-Nuclear Dynamics of Charge transfer in collisions of $H^+$ with $C_2H_6$ ”, Work presented at the 42st Sanibel Symposium.
January 2002	“Atomic and molecular collisions. Present and Future!”, Talk presented at the Jackson State University Physics Department.
November 2001	“Electron-Nuclear Dynamics Study for protons colliding with Ethane for intermediate projectile energies: Preliminary results”. Poster presented at the 10 <sup>th</sup> Conference on Current Trends in Computational Chemistry.
October 2001	“Cross sections and energy loss studies of atomic and molecular collision processes at low- to intermediate projectile energies”, Talk presented at the Physics Department, CCMSI Distinguished Speaker Series, Jackson State University, MS, October 30, 2001.
August 2001	“Cross section calculations for ion-atom, atom-atom, ion-molecule, and atom-molecule collisions in the keV range.”, Talk presented at the Charles Coulson summer School, Oxford University, Oxford, England, 15-25 August, 2001.
August 2001	“Time-dependent analysis of the $N^{3,4+} \rightarrow H$ collision: Energy loss and cross section study”, Poster presented at STOP01, Symposium on stopping of heavy ions, SydDansk University, Odense.
February 2001	“Molecular stopping cross section: Preliminary results for the $H^+ \rightarrow H_2O$ dynamics”, Work presented at the 41st Sanibel Symposium.
February 2001	“Semiclassical electromagnetic fields in the Electron Nuclear Dynamics formalism”, Work presented at the 41st Sanibel Symposium.
November 2000	“Molecular stopping cross section: An Electron-Nuclear Dynamics study”, Work presented at “We can do that” Symposium in honor of Michael C. Zerner, University of Florida, Gainesville, FL.
November 2000	“Energy loss and charge exchange study for protons and hydrogen colliding with H, He, N, O, F, and Ne atomic targets in the keV range”, Work presented in CAARI 2000, University of North Texas, Denton, TX,
February 2000	“Stopping power and direct differential cross section calculations for ion-atom, and atom-atom collisions in the keV range within the END approach”, Work presented at the 40th Sanibel Symposium.
February 2000	“Scattering, energy loss and charge exchange for ion-ion and atom-atom collisions in the keV range within the END approach”. Work presented at the 20th Werner Brandt Workshop on the penetration of charged particles. University of Florida, Gainesville, Florida.
August 1999	“Huge energy loss and dynamic charge states of swift ions”, R. Cabrera-Trujillo and John R. Sabin. Work presented at the ICACS-18, Physics Department, Odense University, Denmark.
February 1999	“On the adiabatic Bohr criterion for effective charge and the independent particle model in the study of the electronic stopping cross section”. Work presented at the 39th Sanibel Symposium, University of Florida.
June 1998	“Projectile Isotope Effects in the Electronic Stopping Power: Harmonic Oscillator Approach.”, Work presented in the “18th Werner Brandt Workshop on the Penetration of Charged Particles in Matter.” University of Florida, Gainesville, FL, USA.
April 1998	Particle penetration and collision cascades, Physics Department, Odense University, Odense.

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November 1994	“Preliminary study on the stopping power of multielectronic ions in the first Born approximation.” Poster presented in the “Primera Semana del Doctorado” at the Universidad Autonoma Metropolitana Unidad Iztapalapa. Mexico City.
November 1994	“Electronic stopping power of heavy ions incidents in molecular targets, no-relativistic velocities. Use of effective charge.” R. Cabrera-Trujillo, S. A. Cruz and J. Soullard. Work presented in the “Primera Semana del Doctorado” at the Universidad Autonoma Metropolitana Unidad Iztapalapa. Mexico City.
October, 1991	“Chemical bond effects on the bombardment of compound materials: heavy ions.” R. Cabrera-Trujillo, S. A. Cruz and J. Soullard. Work presented in the XXXIV National Congress of Physics, Mexico city.

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## Seminars and Colloquia

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October 2005	Physics Colloquium, Department of Physics, University of Tulsa, Oklahoma.
September 2005	Physics Colloquium, Institute of Physics, Centro de Ciencias Fisicas, UNAM. Cuernavaca, Morelos, Mexico.
September 2005	Physics Seminar, Department of Physics, Universidad Veracruzana, Xalapa, Veracruz, Mexico.
September 2005	Physics Colloquium, Institute of Physics, Universidad de Guanajuato, Leon, Guanajuato, Mexico.
September 2005	Physics Colloquium, Department of Physics, Universidad Autonoma Metropolitana, Mexico City.
August 2005	Physics Colloquium, Department of Physics, Oklahoma State University.
March 2005	Atomic Physics Seminar, Department of Physics, Kansas State University.
January 2005	Physical Chemistry Seminar, Chemistry Department, Kansas State University.
April 2003	Seminar, Quantum Theory Project. University of Florida.
June 2002	Seminar, Physics Department. Florida International University.
January 2002	Seminar, Physics Department. Jackson State University.
October 2001	Seminar, Physics Department, CCMSI Distinguished Speaker Series, Jackson State University, MS.
February 1999	Seminar, Quantum Theory Project, University of Florida.

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## Conferences Organized

- Symposium Manager for the 41st Sanibel Symposium, February 24- March 2, 2001.
- Symposium Manager for the 42nd Sanibel Symposium, February 23- March 1, 2002.
- Symposium Manager for the 43nd Sanibel Symposium, February 22- March 1, 2003.
- Member of the local organizing committee for the 23th Werner Brandt Workshop on Electronic Excitations of Solids, held at Playa del Carmen, Quintana Roo, Mexico, June 4-6, 2003.

## Computational experience

- Programming languages: Basic, Python, C, C++, Fortran 77, 90, and 95.
- Proficient in Computational Physics (Quantum Physics).

- Proficient in the software packages Mathematica and Maple.
- Unix programming and administration.
- Member of the QTP system administrator group. Shared administration responsibilities for a 306 nodes IBM RS6000 and a Sun Systems composed of 70 workstations.

## Editorial Work

- Special Editor of *Advances in Quantum Chemistry* for the volume titled “Theory of the Interaction of Swift Ions with Matter”, Vol. **45**, Academic Press, (2004).
- Special Editor of *Advances in Quantum Chemistry* for the volume titled “Theory of the Interaction of Swift Ions with Matter”, Vol. **46**, Academic Press, (2004).

## Other Professional Activities

1. Reviewer for the following journals:

- Physical Review Letters
- Physical Review A
- Journal of Physics B: Atomic, Molecular and Optical Physics
- International Journal of Quantum Chemistry
- Journal of Molecular Structure: THEOCHEM
- Journal of Geophysics and Space Science

## Other Activities

- Member of the Alachua Astronomy Club since February 2001. Gainesville, Florida.
- Member of the Board of Directors for the year 2002 of the Alachua Astronomy Club. Program coordinator and Amateur Telescope Making coordinator, Gainesville, Florida.
- Secretary of the Alachua Astronomy Club, 2003,
- Amateur Telescope Making.  
I have constructed several telescopes in my spare time, from a small 4” up to a moderate size 16” (0.4 m) telescope.  
<http://www.qtp.ufl.edu/~trujillo/atm.html>
- “The Amateur Astronomer”, talk presented at the General Meeting of the Alachua Astronomy Club, April 8th, 2003. Gainesville, FL.
- “From Galileo’s telescope to the Hubble telescope”, talk presented at the General Meeting of the Alachua Astronomy Club, April 13th, 2004. Gainesville, FL.

## Published Interviews

- “Crowds view Venus transit”, in *The Alligator*, June 10th, 2004  
<http://www.alligator.org/edit/news/issues/stories/040610venus.html>
- “Telescope could collect views as good as Hubble’s”, in *The Daily Texan*, August 4th, 2004  
<http://www.dailytexanonline.com/news/2004/08/04/TopStories/University.Briefs-697362.shtml>
- Remi Trujillo biography featured in *Star People, Real people in Astronomy*, by Robert Reeves, *Amateur Astronomy*, **46**, 17 (2005)

## Personal data

- Birth: 1969 in Villa de Luvianos, Mexico State, Mexico.
- U.S. Permanent Resident (Green Card).
- Marital status: Married to Luz María Díaz-Rivera (Ph.D. Astrophysics and Cosmology),
- Languages: I am fluent in Spanish and English, and can read Danish and German.

## References

1. Dr. Brett D. Esry (postdoctoral adviser and present employer)  
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 e-mail: [esry@phys.ksu.edu](mailto:esry@phys.ksu.edu)
2. Prof. Salvador Cruz Jimenez (Thesis adviser and scientific collaborator)  
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 Fax: +52 58 04 46 11  
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3. Prof. Yngve Öhrn (Scientific collaborator and former employer)  
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4. Prof. John. R. Sabin (Scientific collaborator and former employer)  
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 e-mail: [sabin@qtp.ufl.edu](mailto:sabin@qtp.ufl.edu)
5. Prof. Jens Oddershede (Scientific collaborator and Ph. D. research adviser)  
 President (Rektor) of the University of Southern Denmark  
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