

# Mauricio Esguerra

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Home Address

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## PERSONAL INFORMATION

Nationality: Colombian

Marital Status: Single

Languages: Spanish (advanced), English (advanced), French (beginner)

<http://www.eden.rutgers.edu/~esguerra>

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## EDUCATION

Ph.D. Candidate - Rutgers, The State University of New Jersey

Chemist - Universidad Nacional de Colombia (March 23, 2000)

High School:

9th Grade – 11th Grade Gimnasio Moderno - Bogotá, Colombia

9th Grade Sevier County High School - Sevierville, TN, USA

Elementary School:

8th Grade Pi Beta Phi Elementary School - Gatlinburg, TN, USA

Montessori (Kindergarden) – 7th Grade Gimnasio Moderno - Bogotá, Colombia

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## PROFESSIONAL EXPERIENCE

- Academic Monitor for the course, Synthesis of Heterocyclic Compounds, for Pharmaceutical Chemistry Students at Universidad Nacional de Colombia.(1998).
  - Academic Monitor for the course, Organic Synthesis, for Chemistry Students at Universidad Nacional de Colombia.(1998)
  - Patent Engineer for the law firm Baker & Mackenzie (i.e. patent preparation for filling and submitting to the Colombian Superintendence of Industry and Commerce). (May – August 2000)
  - Lab and recitation Teaching Assistant at Universidad de los Andes. (August 2000 – February 2001)
  - Guide elaboration for the course “Prelude to the Sciences”, Physics module, prepared for the Faculty of Sciences at Universidad de los Andes. (June – July 2001)
  - Course instructor for “Prelude to the Sciences”, Physics module, Faculty of Sciences at Universidad de los Andes. (June26 – July19 2001)
  - Patent advisor for the law firm Alvaro Castellanos y Cia. (September 2001 – July 2002)
  - Course instructor for “Prelude to the Sciences”, Physics module, Faculty of Sciences at Universidad de los Andes. (Summer 2002, Summer2003)
  - Teaching assistant for Introduction to Chemical Experimentation lab at Rutgers, The State University of New Jersey. (Fall 2003, Fall 2004, Fall 2006)
  - Teaching assistant for General Chemistry at Rutgers, The State University of New Jersey. (Spring 2004, Spring 2005, Fall 2005)
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## CONFERENCES / SCHOOLS

- Second Latin-American Course on Parallelism and High Performance Computing, Merida, Venezuela (December 3-7 2001).
- A.C.S. Mid-Atlantic Regional Meeting, Piscataway, NJ (May 22-25, 2005).
- Rutgers-UMDNJ Molecular Biophysics Minisymposium, Piscataway, NJ (May 6, 2005).
- Rutgers-UMDNJ Molecular Biophysics Minisymposium, Piscataway, NJ (May 5, 2006).
- NSBP and NSHP Annual Conference, Boston, MA (2007).
- Rutgers-UMDNJ Molecular Biophysics Minisymposium, Piscataway, NJ (May 4, 2007).
- IMA Workshop: RNA in Biology, Bioengineering and Nanotechnology, Minneapolis, MI (October 29 - November 2, 2007).
- Rutgers-UMDNJ Molecular Biophysics Minisymposium, Piscataway, NJ (May 6, 2008).
- 16th Albany Conversation, Albany, NY (June 16-20, 2009).

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•Molecular Simulation and Modeling using CHARMM and the MMTSB Tool Set, San Diego, CA (August 4-7, 2009).

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## POSTERS

- Clustering RNA non-A-type dinucleotide conformations using the base-step parameter space, NSBP & NSHP, Boston, 2007.
  - 4 Main groups for non-ARNA type conformations in the Ribosome, Minisymposium, New Brunswick, 2007.
  - RNA Dinucleotide Step Parameters, IMA Workshop, Minneapolis, 2007.
  - Minisymposium, New Brunswick, 2008.
  - Sequence-dependent Deformability of RNA Helical Regions. What We Have Learned So Far, 16th Albany Conversation, 2009.
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## PUBLICATIONS

- New information content in RNA base pairing deduced from quantitative analysis of high-resolution structures, *Methods*, **47**, 177-186, (2009), Wilma K. Olson, Mauricio Esguerra, Yurong Xin, Xiang-Jun Lu.
- Sequence-dependent deformability of RNA helical regions. What we have learned so far, *Journal of Biomolecular Structure and Dynamics*, **26**, 832, (2009), Mauricio Esguerra N., Wilma K. Olson.