

DR. ANDRÉS JARAMILLO-BOTERO

EDUCATION:

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- 06/1998 Universidad Politécnica de Valencia (Valencia, Spain). **Dr. in Industrial Engineering** (Highest honors, Outstanding Cum-laude degree). Computational Multibody Dynamics. Advisor: Dr. Alfons Crespo (Chair, Informatics Dept., Eng. Faculty).
 - 12/1989 State University of New York, Binghamton, New York, USA. **Master of Science in Computer Science** (Fulbright Scholar). Massively parallel processing architectures. Advisors: Dr. Kanad Ghose (CS Chair), Dr. Peter Kogge (IBM Fellow).
 - 06/1986 Boston University, Boston, Massachusetts, USA. **Bachelor of Science in Electrical Engineering**
 - 1982 International Baccalaureate Office. Colombia-England. **International Baccalaureate High Level Degree in Physics.**
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PROFESSIONAL EXPERIENCE:

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- 6/1/2006- PRES. California Institute of Technology, Pasadena, California, United States. **Director, Multiscale Modeling and Simulation**, Materials and Process Simulation Center
 - 2/1/1990- Pontificia Universidad Javeriana, Cali, Colombia.
 - 6/1/2006
 - o **Full (Tenure) Professor** Computational Science Department, Engineering Faculty (1999–).
 - o Director/Founder Robotics and Process Automation Research Group (1995–2006).
 - o School of Engineering Dean. 8/1998-10/2004.
 - o Chair Electronics Engineering. 6/1993-10/1998. Chair Systems and Computer Engineering. 6/1992-10/1998.
 - 10/2004- California Institute of Technology (Caltech), Pasadena, California. Materials and Process Simulation Center (MSC).
 - 03/2005
 - o **Invited Research Associate.** Computational Nanotechnology. Host: Professor William A. Goddard, III
 - 9/2002- Institute of Pure and Applied Mathematics (IPAM), University of California Los Angeles (UCLA), Los Angeles, California, US.
 - 12/2002
 - o **Invited Research Fellow.** Nano-scale Science and Engineering Program, NSF funded. Host: Dr. Mark Green
 - 10/1996- California Institute of Technology (Caltech), Pasadena, California. Materials and Process Simulation Center (MSC).
 - 12/1997 Jet Propulsion Laboratory (JPL-NASA), Pasadena, California. Ultracomputing Group, Engineering and Science Directorate.
 - o **Visiting Scientist (Associate).** New methods for Computational Molecular Dynamics. Collaborators: Dr. William Goddard III (Dir. MSC), Dr. Tahir Cagin (MSC), Dr. Amir Fijany (Senior Researcher JPL).
 - 8/1992- Mechanical Engineering Laboratory (MEL), Autonomous Machinery Division, Robotics Department, Tsukuba, Ibaraki, Japan.
 - 7/1993
 - o **Invited Researcher and Trainee.** Advanced Industrial Technologies. Host: Dr. Kazuo Yamaba (Senior Researcher MEL).
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RESEARCH AREAS:

- o First principles based Multiscale Modeling and Simulation, Constrained Coarse-grain Molecular Dynamics, Massively Parallel Computations in Molecular Simulations (algorithms and architectures), Nanoscale Science and Engineering (Kino-dynamics, Transport, and Control)

OTHER PROFESSIONAL ACTIVITIES

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- 1993-PRESENT **Peer Reviewer** Institute of Electrical and Electronics Engineers - IEEE **and Scientific Reviewer and Advisor** for the Latin-American Center for Informatics Studies (CLEI) and Colciencias (NSF equivalent).
 - 06/2001-06/2006 **Principal Editor**, EPICICLOS Scientific Magazine (peer reviewed), ISSN: 1657-5636. Indexed in Latindex.

HONORS

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- 9/2004-3/2005 **NSF-Caltech** (Materials and Process Simulation Center) **Research Fellow (PASI: Computational Nanotech).**
 - 9/2002 **NSF-IPAM** (Institute of Pure and Applied Mathematics) **Research Fellow.**
 - 08/30/2002 **“Scientific Merit 2001”** Distinction / **Honorary Member.** Colombian Engineers Association (Valle chapter)
 - 03/19/2002 **“Outstanding Young Professional 2001”** prize, International Junior Chamber (Cali-Colombia chapter).
 - 08/14/2001 Received into the highest Jesuit honors **order in the degree of “Gentleman”.**
 - 2001 **“2000 Outstanding Scientists of the Twentieth Century”.** IBC, Cambridge, U.K.
 - 2000 **“WHO’s WHO in America in Science and Engineering”** (5th Ed., 2000-2001, Marquis Ed., U.S.A.).
 - 10/1997 **Fellow, NSF-NPACI, San Diego Supercomputer Center,** San Diego, California, U.S.
 - 1992-1993 **Research Fellow Japan Industrial Technology Association (JITA),** Tsukuba, Japan.
 - 1988-89 **Fulbright Scholar,** Master of Science in Computer Science, State University of New York, New York, U.S.A.
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PROFESSIONAL AFFILIATIONS

- o I.E.E.E. Senior member (# 04511036, Institute of Electrical and Electronics Engineers).
- o A.C.M. member (# 4711479, Association for Computing Machinery).
- o A.A.A.S. member (# 09961089801, American Association for the Advancement of Science).

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