

CURRICULUM VITAE: as January 2013

JOSE ANTONIO GARCIA BARRETO

0. PERSONAL DATA:

- 0.1 Place of birth: Toluca, State of Mexico, MEXICO
- 0.2 Civil Status: Married, a daughter (31 yrs), a son (30 yrs)
- 0.5 Current Position: Investigador Titular B Tiempo Completo
something similar to (full time) Full Professor currently level B
Instituto de Astronomia, UNAM.
Circuito Exterior C.U. Coyoacan, Mexico D.F. 04510
Phone office: [52]-(55)5 622-39-48 (office), (55)5 622-39-08
Fax : [52]-(55)5 616-06-53
e-mail: j.antonio.garcia.barreto@astro.unam.mx
web: <http://www.astroscu.unam.mx/~tony>
Member of the Mexican Academy of Sciences since 1993
Member of the Mexican National System of Researchers
in Basic And Applied Sciences (in Spanish Sistema
Nacional de Investigadores) currently level 1 (highest level is 3)
Number of Published Research Papers in international refereed journals: 35
Number of citations (upto May 2011): 648
Ratio Total number of citations per total number of publications : 18.5

1. EDUCATION:

- 1.1 Undergraduate: BSc Electrical Engineering
Graduation: June 10, 1976
School: **Universidad de las Américas**,
Cholula, Estado de Puebla, Mexico
- 1.2 Graduate: PhD Physics, major in Radio Astronomy
Graduation: June 1, 1982.
Thesis: Very Long Baseline Interferometric Observations of Celestial Masers Sources
School: **Massachusetts Institute of Technology**,
Physics Department, Cambridge, Mass. 02139
Supervisor(s): **Prof. Bernard F. Burke (MIT)**,
Dr. James M. Moran, Dr. M. J. Reid (CfA)

2. RESEARCH EXPERIENCE

2.1 Research papers published in international journals : **35**

2.2 Number of citations: 648, # citations / # papers = 18.5

2.3 Contributions presented in international Astronomy Meetings: **38**

2.4 Three text books: two in printed (and digital) versions and one only in digital version.

1. Author of a textbook on introductory astronomy at undergraduate level, *in Spanish*, **Astronomia Basica**, 2000 Publisher: Fondo de Cultura Económica, Mexico City, ISBN 968-16-6092-7.

2. Co-author of a textbook on solutions to problems of electromagnetic theory, level undergraduate, masters and PhD. *in Spanish*, **Soluciones de Problemas de Teoria Electromagnetica**, first edition 2006 Publisher: Las Prensas de Ciencias, UNAM, Mexico City, ISBN 970-32-1151-8. Second Edition 2010 Publisher: Las Prensas de Ciencias, UNAM, Mexico City, ISBN 978-607-02-1691-6

3. Author: *in Spanish*, **Introduccion a Radio Astronomia [Introduction to Radio Astronomy]**, Scanned hand written class notes with 29 lectures, 2008 *Digital Book: free access*, Digital Library UNAM, Mexico City, ISBN 968-6116-41-9

2.5 ACADEMIC POSITIONS:

Current Position: Investigador Titular Full Professor currently level B
Instituto de Astronomia, UNAM.
Circuito Exterior C.U. Coyoacan, Mexico D.F. 04510

Sep 2003 – Feb 2004: **Visitor in Astronomy** at the Physics, Mathematics and Astronomy Department (under the Supervision of Prof. N.Z. Scoville)
at The California Institute of Technology in Pasadena, California, U.S.A.

Sep 2001 – Feb 2002: **Six months Sabbatical at INAOE**, (Dr. J. Guichard)
Tonanzintla, Puebla, Mexico.

Aug 1992 – Mar 1999: Investigador Titular A, Instituto de Astronomia, UNAM

Aug 1982 – Aug 1992: Investigador Asociado C, Instituto de Astronomia, UNAM

Aug 1997 – Jul 1998: **Visiting Scientist**, Department of Astronomy, University of Minnesota (under the Supervision of Prof. Lawrence Rudnick), Minneapolis, Minn. USA.

Jul 1990 – Jun 1991: **Visiting Scientist**, Max Planck Institut fur Radioastronomie (associated with Prof. R. Wielebinski Group), Bonn, Germany.

Aug 1989 – Jun 1990: **Visiting Scientist**, Institut de Radio Astronomie Millimetrique (under the supervision of Dr. Dennis Downes), Grenoble, France.

Jul 1988 – May 1989 **Visiting Scientist and Lecturer**, Centro de Investigacion en Ciencias Basicas, Universidad Autonoma del Estado de Mexico, Toluca,

Mexico.

Jan 1985 – Jun 1988 **Visiting Lecturer**, School of Sciences, Physics Department, Universidad Autónoma de Baja California, Ensenada, Baja California, Mexico.

Oct 1984 – Jun 1988 **Investigador Asociado**, Observatorio Astronomico Nacional, OAN (UNAM), Ensenada, Baja California, Mexico.

Apr 2007, Apr 2008, Nov 2008, **Visiting Scientist** (short visits) Caltech (Prof. N.S. Scoville), 1992 Obs. Paris Meudon (Dr. F. Combes), Jun 1987, Jul 1985, May 1987 MIT (Prof. B.F. Burke), CfA (Dr. J.M. Moran & Dr. M.J. Reid).

2.6 Research topics:

Current research: observations (radio continuum, HI, CO, H α , broadband optical) of Shapley Ames Barred Galaxies – circumnuclear structures
Previous research: VLBI spectral line observations of galactic masers (H₂O, OH); VLA 6 cm number count of radio continuum sources; radio continuum observations of planetary nebulae.

2.7 Languages:

Mother tongue: Spanish (Mexico)

English (95%)

German (spoken, reading, currently 3%)

French (spoken, reading, currently 3%)

2.8 External from (IA-UNAM) Funding

- a) **DGAPA-UNAM Jan 2012- Dec 2012** Research Grant IN 108011-2 in order to carry out research in the area of Formation and Evolution of Barred Galaxies in the Nearby Universe.
- b) **DGAPA-UNAM Jan 2011- Dec 2011** Research Grant IN 112408-2 in order to carry out research in the area of Molecular Gas Content in Barred Galaxy NGC 3367
- c) **DGAPA-UNAM Jan 2009- Dec 2009** Research Grant IN 107806-3 in order to carry out research in the area of Observational Properties of Barred Galaxies.
- d) **DGAPA-UNAM Aug 2003- Feb 2004** Sabbatical research grant in order to do an Academic Visit at the Astronomy Department at the California Institute of Technology, Pasadena, USA
- e) **DGAPA-UNAM 1997- 1998** Sabbatical research grant in order to do a sabbatical stay at the Astronomy department at the University of Minnesota, Minneapolis, MN.

USA

- f) **CONACYT (689-E9111)** 5 year research grant to carry out observational studies of nearby barred galaxies, May 1992.
- g) **International Program CONACYT (Mexico) - CNRS (France)**
- h) **CONACYT (A128 CCOE - 920189 CE-7)** travel grant, May 1992.
“Numerical Simulations of Circumnuclear Structures in Barred Galaxies”, F. Combes (Obs.Paris), February 1992.
- i) **Junior Fellowship** from the Alexander von Humboldt Foundation, July 1990 until June 1991 in order to carry out research at the Max Planck Institute für Radio Astronomie MPIfR, in Bonn, Germany with Dr. Richard Wilebisky on radio continuum emission from nearby RSA barred galaxies.
- j) **Max Planck Junior Fellowship** from the Max Planck Foundation, Feb. 1990 until June 1990 in order to carry out research at the Institute de Radio Astronomie Millimetrique, IRAM, in Grenoble, France with Dr. Dennis Downes on molecular gas content from nearby RSA barred galaxies.
- k) **Junior Fellowship** from the Alexander von Humboldt Foundation, August 1989 until February 1990 in order to carry out research at the Institute de Radio Astronomie Millimetrique, IRAM, in Grenoble, France with Dr. Dennis Downes on molecular gas content from nearby RSA barred galaxies.
- l) **Small Research Grant Program**, American Astronomical Society, 1986.
- m) **Traveling financial support** from IAU, AAS, MIT, CfA, CNRS (France), IRAM (France), MPIfR (Germany), Univ. Massachusetts (USA), Univ. of Manchester (UK), Japan, Nato, CONACYT (Mexico), and AeroMexico.

3. TEACHING EXPERIENCE:

3.1 UNDERGRADUATE COURSES: 28

- 1) Radioastronomy, School of Sciences, UNAM. May - Oct 1984
- 2) Algebra I y II, School of Sciences, (UABC) Universidad de Baja California, Ensenada. Jan - May 1985.
- 3) Electricity and Magnetism, School of Sciences, (UABC) Universidad de Baja California, Ensenada, Jan - May 1986.
- 4) Newton Mechanics, School of Sciences, (UABC) Universidad de Baja California, Ensenada, Sept - Dec 1986.
- 5) Fourier Transforms and Integrals, School of Sciences, (UABC) Universidad de Baja California, Ensenada, Sept - Dec 1985.
- 6) Introduction to Physics, School of Sciences, (UAEM) Universidad del Estado de Mexico, Toluca, Mexico, Sept - Dec 1988.
- 7) Physics I. School of Geography, (UAEM) Universidad del Estado de Mexico, Toluca, Mexico,

Sept - Dec 1988.

- 8) Algebra I School of Chemistry, (UAEM) Universidad del Estado de Mexico, Toluca, Mexico, Sept - Dec 1988.
- 9) Applied Sciences II, School of Architecture and Design, (UAEM) Universidad del Estado de Mexico, Toluca, Mexico, Jun - Aug 1996.
- 10) Introduction to Thermodynamics, School of Sciences, UNAM, Mexico, City, Aug - Dec 1996
- 11) Applied Sciences I, School of Architecture and Design, UAEM, Toluca, Mexico, Sep 1998 - Feb 1999.
- 12) Applied Sciences II, School of Architecture and Design, UAEM, Toluca, Mexico, Mar - Jul 1999.
- 13) Radioastronomy, School of Sciences, UNAM. Jan - Jun 1999
- 14) Electromagnetic Theory, School of Sciences, UNAM. Jan - Jun 2001
- 15) General Astrophysics for students in physics, School of Sciences, UNAM. Aug - Dec 2004
- 16) General Astrophysics for students in physics, School of Sciences, UNAM. Feb - Jun 2005
- 17) General Astrophysics for students in physics, School of Sciences, UNAM. Aug - Dec 2005
- 18) General Astrophysics for students in physics, School of Sciences, UNAM. Feb - Jun 2006
- 19) General Astrophysics for students in physics, School of Sciences, UNAM. Aug - Dec 2006
- 20) General Astrophysics for students in physics, School of Sciences, UNAM. Feb - Jun 2007
- 21) Galactic Astronomy, for students in physics, School of Sciences, UNAM. Aug - Dec 2007
- 22) Galactic Astronomy, for students in physics, School of Sciences, UNAM. Feb - May 2008
- 23) Galactic Astronomy, for students in physics, School of Sciences, UNAM. Aug - Dec 2008
- 24) General Astrophysics for students in physics, School of Sciences, UNAM. Feb - Jun 2009
- 25) General Astrophysics for students in physics, School of Sciences, UNAM. Aug - Dec 2009
- 26) General Astrophysics for students in physics, School of Sciences, UNAM. Feb - May 2011
- 27) General Astrophysics for students in physics, School of Sciences, UNAM. Aug - Dec 2011
- 28) General Astrophysics for students in physics, School of Sciences, UNAM. Aug - Dec 2012

3.2 GRADUATE COURSES: 9

- 1) *Fourier Transforms and Integrals*, Departament of Physics and Optics, CICESE, Ensenada, Baja California, Mexico, Sept 1985 - Jan 1986.
- 2) *Introduction to Galactic Structure and Stellar Dynamics*, Instituto de Astronomia, UNAM, Jan - Jun 1995
- 3) *Radiative Processes*, Instituto de Astronomia, UNAM, Mexico City, Aug - Dec 1996
- 4) *Introduction to Radio Astronomy*, INAOE, Tonanzintla, Puebla, Mexico, May - Jul 1999
- 5) *Introduction to Radio Astronomy*, Instituto de Astronomia, UNAM, Mexico City, Aug - Dec 1999
- 6) *Selected Reading on Radio Astronomy*, INAOE, Tonanzintla, Puebla, Mexico Sep - Dec 2001
- 7) *Introduction to Galactic Structure and Stellar Dynamics*, Coordinacion Astrofisica, INAOE, Jan - May 2002
- 8) *Radiative Processes*, School of Sciences, for students of Master in Astronomy, UNAM, Aug - Dec 2004
- 9) *Introduction to Radio Astronomy*, Instituto de Astronomia, for students of Master in

4. SCIENTIFIC PAPERS:**4.1 Original Research Papers published in international refereed journals: 35**

1. Haschick, A.D., Moran, J.M., Rodríguez, L.F., Burke, B.F., Greenfield, P., García-Barreto, J.A., 1980 “ Observations of a Compact HII Region and Water Vapor Maser Sources in the Vicinity of the Herbig Haro Objects 7-11” *ApJ*, **237**, 26.
2. García-Barreto, J.A., Rodríguez, L.F., Moran, J.M., Burke, B.F., 1981 “A Search for High Velocity Water Masers in Regions of Star Formation” *Rev . Mex. Astr. Astrof.*, **5**, 87.
3. Walker, R.C., Matsakis, D.N., García-Barreto, J.A., 1982 “Water Vapor Masers in W49(N) I. Maps” *ApJ*, **255**, 128.
4. Lawrence, C.R., Bennett, C.L., García-Barreto, J.A., Greenfield, P., Burke, B.F., 1983 “5 GHz Observations of Sources in the Arecibo 611 MHz Survey” *ApJS*, **51**, 67.
5. Bennett, C.L., Lawrence, C.R., García-Barreto, J.A., Hewitt, J.N., Burke, B.F., 1983 “VLA Source Counts at 6cm Wavelength” *Nature*, **301**, 686.
6. Rodríguez, L.F., García-Barreto, J.A., 1984 “On the Abundance of Atomic and Molecular Hydrogen in the Outer Parts of Young Planetary Nebulae” *Rev . Mex. Astr. Astrof.*, **9**, 153.
7. Rodríguez, L.F., García-Barreto, J.A., Cantó, J., Moreno, M.A., Torres- Peimbert, S., Costero, R., Serrano, A., Moran, J.M., Garay, G. 1985 “Radio Observations of the Young Planetary Nebulae NGC 6302” *MNRAS*, **215**, 353.
8. Rodríguez, L.F., García-Barreto, J.A., Gómez, Y. 1985 “Neutral Hydrogen and Continuum VLA Observations of the Planetary Nebulae NGC 6302 and NGC 2440” *Rev . Mex. Astr. Astrof.*, **11**, 109.
9. Rodríguez, L.F., Gómez, Y., García-Barreto, J.A., 1985 “A Search for Radio Continuum Emission from Evolved Stars with Asymmetric OH Maser Emission” *Rev . Mex. Astr. Astrof.*, **11**, 139.
10. García-Barreto, J.A., Burke, B.F., Reid, M.J., Moran, J.M., Haschick, A.D. Schilizzi, R.T. 1988 “Magnetic Field Structure of the Star Forming Region W3(OH): VLBI Spectral Line Results” *ApJ*, **326**, 958.
11. Krause, M., Cox, P., García-Barreto, J.A., Downes, D. 1990 “CO Emission along the anomalous arms of NGC 4258” *A&A (Letters)*, **233**, L1.
12. García-Barreto, J.A., Downes, D., Combes, F., Gerin, M., Magri, C., Carrasco, L., Cruz-Gonzalez, I. 1991 “The Nuclear Ring of the Barred Galaxy NGC 4314” *A&A*, **244**, 257.
13. Carrasco, L., Recillas-Cruz, E., García-Barreto, A., Cruz-González, I. and Serrano, P.G., A. 1991, “JHK Infrared Standard Stars and Absolute Calibration of the San Pedro Martir Observatory (OAN) Photometric System”, *PASP*, **103**, 987.
14. García-Barreto, J.A., Downes, D., Combes, F., Carrasco, L., Gerin, M., Cruz-González, I. 1991 “Circumnuclear Star Formation in the Barred Spiral Galaxy NGC 1022” *A&A.*, **252**, 19.
15. García-Barreto, J.A., Dettmar, R.-J., Combes, F., Gerin, M., Koribalski, B., 1991 “The Nuclear Ring of the Barred Galaxy NGC 1326” *Rev. Mex. Astron. Astrof.*, **22**, 197.
16. García-Barreto, J.A., Carrillo, R., Klein, U., Dahlem, M. 1993 “High Frequency Radio

- Continuum Observations of Barred Spiral Galaxies” *Rev. Mex. Astrof.*, **25**, 31.
17. García-Barreto, J.A., Downes, D., Huchtmeier, W.K. 1994 “HI Deficiency in the Coma I Cloud of Galaxies”, *A&A.*, **288**, 705.
 18. García-Barreto, J.A., Franco, J., Guichard, J., Carrillo, R. 1995 “The Central Regions of the Galaxy NGC 4691: A Remarkable Structure with a Fast Outflow Near the Nucleus”, *ApJ*, **451**, 156.
 19. García-Barreto, J.A., Franco, J., Carrillo, R. 1996 “On the Origin of the SW H α Regions in the Spiral Galaxy NGC 3367”, *ApJ*, **469**, 138.
 20. Garcia-Barreto, J.A., Franco, J., Carrillo, R., Venegas, S., Escalante-Ramirez,B. 1996 “Spatial Distribution of Ionized Gas in Bright Barred Spiral Galaxies: HImages”, *Rev.Mex.Astron. Astrof.*, **32**, 89.
 21. Venegas-Martinez, S., Escalante-Ramirez,B., Garcia-Barreto, J.A. 1997 “Applications of Polynomial Transforms in Astronomical Image Restoration and Deconvolution”, *Rev.Mex.Astron. Astrof.*, **33**, 173.
 22. Garcia-Barreto, J.A., Rudnick, L., Franco, J., Martos, M. 1998, “Central Activity in the Barred Galaxy NGC 3367”, *AJ*, **116**, 111.
 23. Garcia-Barreto, J.A., Combes, F., Koribalski, B., Franco, J. 1999, “HI Spatial Distribution in the Galaxy NGC 3783”, *A&A*, **348**, 685.
 24. Garcia-Barreto, J.A., Aceves, H., Kuhn, O. Canalizo, G., Carrillo, R., Franco, J. 1999, “Optical Spectroscopy of the Central Regions of Bright Barred Spiral Galaxies”, *Rev.Mex.Astron.Astrof.*, **35**, 173
 25. Garcia-Barreto, J.A. & Moreno, E. 2000 “The Remarkable Central Structure of the Barred Galaxy NGC 1415”, *ApJ*, 529, 832
 26. Franco, J., Garcia-Barreto, J.A. & de la Fuente E. 2000, ”Decreasing Density Gradients in Circumnuclear HII Regions of Barred Galaxies NGC 1022, NGC 1326 and NGC 4314” *ApJ*, **544**, 277
 27. Garcia-Barreto, J.A. & Rosado, M. 2001, ”Fabry Perot H α Observations of the Barred Galaxy NGC 3367” *AJ*, **121**, 2540
 28. Franco, J., Kurtz, S., Garcia-Barreto, J.A., Garcia-Segura, G., de la Fuente, E., Hofner, P., Esquivel, A. 2001, ”Pressure and Density Gradients in HII Regions”, *ApSS*, **277**, 71
 29. Garcia-Barreto, J.A., Franco, J. & Rudnick, L. 2002, ”VLA High Resolution 1.4 and 8.4 GHz Mapping of the Barred Galaxy NGC 3367” *AJ*, **123**, 1913
 30. Garcia-Barreto, J.A., Carrillo, R. & Vera-Villamizar, N. 2003, ”Companions of Bright Barred Shapley Ames Galaxies” *AJ*, **126**, 1707 - 1719
 31. Garcia-Barreto, J.A., Scoville, N. Z., Koda, J.& Sheth, K. 2005, ”CO in the Bipolar Radio Continuum Galaxy NGC 3367” *AJ*, **129**, 125 - 135
 32. Mayya, Y.D., Bizyaev, D. Romano, R., Garcia-Barreto, J.A. & Vorobyov, E.I. 2005, ”The Detection of Nonthermal Radio Continuum Spokes and the Study of Star Formation in the Cartwheel” *ApJ*, **620**, L35 - L38
 33. Garcia-Barreto, J.A., Hernandez-Toledo, H., Moreno-Díaz, E., Bernal-Marín, T., & Villarreal-Castillo, A. L. 2007, ”UBVRI Photometry of Stellar Structures throughout the disk of the Barred Galaxy NGC 3367”, *AJ*, **134**, 142-157
 34. Diaz-Hernandez, R., Garcia-Barreto, J.A., & Moreno-Corral, M. A. 2009, ”Digital Images of a Set of Bright Shapley Ames Disk Galaxies from San Pedro Martir Glass Plates”, *Rev.Mex.Fisica*, **E 55**, Num. 1, June 2009, p 70-84.

35. Hernandez-Toledo, H., Cano-Diaz, M., Valenzuela, O., Puerari, I. Garcia-Barreto, J.A., Moreno-Díaz, E., & Bravo-Alfaro H. 2011, "The Bulgeless Seyfert/LINER Galaxy NGC 3367: Disk, Bar, Lpodsideness and Environment", *AJ*, **142**, 182 - 199.

4.2 Research contributions in International and Mexican National Meetings: 38

1. García-Barreto, J.A., Burke, B.F. 1982 "VLB Measurements of Stokes Parameters" in *Very Long Baseline Interferometry Techniques*, Centre National D'Etudes Spatiales, Toulouse, France, p. 337.
2. García-Barreto, J.A., Burke, B.F., Reid, M.J., Moran, J.M., Haschick, A.D., 1983 "Magnetic Field Structure in Regions of Star Formation: VLBI Spectral Line Results", in I.A.U. 110, eds. R. Fanti, K. Kellerman and G. Setti, Reidel, Dordrecht, p. 333.
3. García-Barreto, J.A., Pismis, P. 1984 "VLA Continuum Observations of the Barred Spiral Galaxy NGC 1300" *BAAS*, **16**, 1,410.
4. García-Barreto, J.A., Pismis, P. 1985 "VLA Continuum Observations of the Barred Spiral Galaxy NGC 4314" I.A.U. 115 eds. M.Peimbert and J. Jugaku, Reidel, Dordrecht, p. 626.
5. García-Barreto, J.A., Pismis, P. 1986 "6 and 20 cm VLA Observations of the Barred Spiral Galaxy NGC 4314" *BAAS*, **17**, 4,893.
6. García-Barreto, J.A., Pismis, P., 1987 "VLA Continuum Observations of Barred Spiral Galaxies" in *Star Formation in Galaxies*, NASA Conference Publication 2466, ed. C.J. Lonsdale Persson, Pasadena, Calif., p. 483.
7. Gómez, Y., Rodríguez, L.F., García-Barreto, J.A., 1987 "VLA Observations of Twice Ionized Helium in NGC 6302" *Rev. Mex.Astr.Astrof.*, **14**, 560.
8. García-Barreto, J.A., Carrasco, L., Cruz-González, I. 1987 "Near Infrared Observations of Bright Barred Spiral Galaxies" *BAAS*, **194**,1033.
9. Zheng, X.W., Moran, J.M., Reid, M.J., García-Barreto, J.A., Garay, G., 1988 "Dual Circular Polarization Measurements at 1665 and 1667 MHz toward the OH Masers in NGC 6334N, NGC 7538N, NGC 7538S and G45.07+0.13" I.A.U. 129 eds. M.J. Reid, J.M. Moran, Kluwer Academic, Dordrecht, p. 263.
10. García-Barreto, J.A., Pismis, P., 1988 "2 cm Observations of the Barred Spiral Galaxy NGC 4314" in *Galactic and Extragalactic Star Formation*, eds. R. Pudritz and M. Fich, NATO.
11. Burke, B.F., García-Barreto, J.A., Reid, M.J., Moran, J.M., Haschick, A.D. Schilizzi, R.T., 1988 "Magnetic Field Structure of the Region W3(OH): VLBI SPECTRAL LINE RESULTS" *BAAS*, **20**, 1,642.
12. García-Barreto, J.A., Magri, C., Pismis, P., 1988 "HI Observation of the Hot Spot Barred Galaxy NGC 4314" *BAAS*, **20**,3,910.
13. García-Barreto, J.A., Combes, F., Magri, C. 1989 "HI and CO Emission in the Hot Spot Barred Spiral NGC 4314" in *The World of Galaxies* eds. H.G. Corwin, Jr., and L. Bottinelli, Springer Verlag, New York, p 387.
14. García-Barreto, J.A., Combes, F., Magri, C., 1989 "On the Gas Content of the Barred Spiral Galaxy NGC 4314", *BAAS*, **21**, 1,716.
15. García-Barreto, J.A., Dettmar, R-F., Combes, R., Gerin, M.,Koribalski, B., 1992 "The Nuclear Ring of the Barred Spiral Galaxy NGC 1326", Conference Sub-Arc Second Radio Astronomy, Manchester, Inglaterra, p. 323

16. García-Barreto, J.A., Downes, D., Huchtmeier, W.K., 1994 “HI Deficiency in the Coma I cloud of Galaxies”, *BAAS*, **26**, No. 3, 1213.
17. García-Barreto, J.A., 1994 “On the Origin of the SW Hregions in the Barred Galaxy NGC 3357”, *BAAS*, **26**, No. 4, 1468.
18. Venegas, M.S., Escalante-Ramírez, B., García, U.F & García-Barreto, J.A., 1995 , Applications of Digital Image Processing, **XVIII**, No. 2564, ed. A.G. Tescher (San Diego: SPIE), 136.
19. García-Barreto, J.A., Carrillo, R., Venegas, S., Escalante-Ramirez, B. 1996 “Ionized Gas in Bright Barred Spiral Galaxies:HIImages”, IAU Coll. **157**, p 76.
20. García-Barreto, J.A., Franco, J.,Carrillo, R. 1997, *RMAA Conf. Series*, **6**, 260 “Circumnuclear Starbursts in Barred Galaxies: H α Images”, First Guillermo Haro Conference on Astrophysics: Starburst Activity in Galaxies, Puebla, Mexico
21. García-Barreto, J.A. & moreno, E. 2000, *ASP S Conf* 197, “XVth IAP Meeting Dynamics of Galaxies: From the Early Universe to the Present” eds. F. Combes, G.A. Mamon & V. Charmandaris (San Francisco: ASP), 55
22. García-Barreto, J.A., Combes, F., Koribalski, B. & Franco, J. 2000,*ASP Conf. S.* 218, “Mapping the Hidden Universe”, eds. R.C.Kraan-Korteweg, P.A.Henning & H. Andernach (San Francisco: ASP), 291
23. Franco, F., Kurtz, S.E., Hofner, P., García-Barreto, J.A., Garcia-Segura, G., de la Fuente, E., & Esquivel, A. 2000, *Rev. Mexicana Astron.Astrofis. Conf. S.* 9, “Astrophysical Plasmas:Codes, Models and Observations”, ed. J.Arthur, N. Brickhouse & J. Franco (Mexico City), 177
24. Franco, J., Kurtz, S.E., García-Barreto, J.A., Garcia-Segura, G., de la Fuente, E., Hofner, P. & Esquivel, A. 2000, in “Ultra Compact HII Regions”, Granada, España, (Dorchrecht: Kluwer)
25. Kurtz, S., Franco, F., García-Barreto, J.A., Hofner, P., Garcia-Segura, G., de la Fuente, E. & Esquivel, A. 2001, in “The Sixth Mexico Texas Conference on Astrophysics” , Austin, Texas, *Rev. Mexicana Astron.Astrofis.* 10, 45
26. García-Barreto, J.A. 2000, in “XLIII Congreso Nacional de Física”, Puebla, Mexico (UNAM: Sociedad Mexicana de Física), p. 36
27. García-Barreto, J.A. 2000, in “XLIII Congreso Nacional de Física”, Puebla, Mexico (UNAM: Sociedad Mexicana de Física), p. 111
28. García-Barreto, J.A. & Rosado M. 2001, *Rev. Mex. Astron.Astrofis. Conf. S.* 12, 258, “Ionized Gaseous Nebulae”, eds. (Mexico City)
29. Franco, J., Garcia-Barreto, J.A., Garcia-Segura, G., de la Fuente, E., Hofner, P. & Esquivel, E. ”Pressure and Density Gradients in HII Regions”, 2001, *ApSS*, **277**, 71 - 74
30. de la Fuente, E., Garcia-Barreto, J.A., Franco, J. 2002, *RMAA Conf. S.* 12, 256 “Optically Thick Giant HII Regions with decreasing Density Gradients in three barred galaxies”
31. García-Barreto, J.A., Franco, J. & Rudnick, L. 2002, *ASP Conf. S.* 275, 362, “High Resolution 1.4 and 8.4 GHz Observations of the Barred Galaxy NGC 3367”, in the “Galaxy Disks: Kinematics, Dynamics, and Perturbations” Puebla, Mexico Nov 2001
32. García-Barreto, J.A., Scoville, N.Z., Koda, J. & Sheth, K. 2005, *ASP Conf. S.* 274, “150 Magnitudes of Visual Extinction towards the Central Region of the Barred Galaxy NGC 3367”, en la Reunión “Triggering Relativistic Jets” celebrado en Cozumel, México en Marzo de 2005.

33. García-Barreto, J.A., Scoville, N.Z., Koda, J. & Sheth, K. 2005, *ASP Conf. S.* 274, “ 3×10^8 Msun of molecular gas towards the Central Region of the Barred Galaxy NGC 3367”, en la Reunión “Submillimeter Astronomy in the era of the Smithsonian submillimeter Array”, Cambridge, Massachusetts, June 2005.
34. García-Barreto, J.A. 2006, in “XLIX Mexican Physics Meeting”, San Luis Potosi, Mexico (UNAM: Sociedad Mexicana de Fisica) session 4SBMP.
35. García-Barreto, J.A. 2008, “Is There a Molecular Toroid in the Center of the Barred Galaxy NGC 3367”, in the International Meeting “Galactic Structure and Structure of Galaxies”, Ensenada, Baja California, March de 2008.
36. García-Barreto, J. A. 2010, “Fraction of barred galaxies in the nearby universe, $0 < z < 0.066$ ”, in XIII Regional Latinamerican, International Astronomical Union, in Morelia, Mich. Mexico from November 8th. to 12, 2010.
37. García-Barreto, J. A. 2012, “Relative Fraction of E, S0, and SB galaxies in Groups and Clusters in the Nearby Universe, $0 \leq z \leq 0.066$, as a function of redshift, BAAS, 2012, 44, 2.
38. García-Barreto, J. A. 2012, “Fraccion Relativa de galaxias E, S0, y SB en Grupos y Cúmulos en el Universo Cercano, $0 \leq z \leq 0.066$, como función del corrimiento al rojo, LV Mexican Physics National Meeting, in Morelia, Mich. Mexico, October 2012, Session 1SB06, p 16.

5. POPULAR PAPERS in SPANISH

1. García-Barreto, J.A., 1983 “Radiointerferometría”, *Ciencia y Desarrollo*, **53** p. 65.
2. García-Barreto, J.A., 1983 “ Radio Observaciones del Sol durante un Eclipse Solar”, *Ciencia y Desarrollo*, Volumen Especial de Septiembre. P. 41. Mexico, D. F.
3. García-Barreto, J.A., 1983 “Observando al Sol” *El Universo*, **40**, 13. (Sociedad Astronómica de Mexico) Mexico, D. F.
4. García-Barreto, J.A., Fierro Rayo, J. y Flores Gutiérrez, D. 1984. “Eclipse Anular de Sol, 30 de Mayo de 1984” editado por Talleres Gráficos de la Nación, Mexico, D. F.
5. García-Barreto, J.A., Tapia, M. 1984 “Las Astronomías no Visibles”. *La Astronomía Contemporánea*, editorial UNAM, Mexico, D. F. p. 155.
6. García-Barreto, J.A. y Rodríguez, L.F., 1984 “Fuentes Compactas de Ondas de Radio en Regiones de Formación Estelar” en *Temas Selectos de la Astrofísica*, editorial UNAM, Mexico, D.F. p. 55.
7. García-Barreto, J.A. 1984. “El Radiotelescopio”, *Información Científica y Tecnológica*, CONACYT, Mexico, D.F. Vol.6, Núm.93, p. 54
8. García-Barreto, J.A., 1996 “Temperaturas en Radio Astronomía”, *Ciencia Ergo Sum* (Revista de la Universidad Autónoma del Estado de Mexico, Toluca, Mexico) Vol. 3, Num 3, pag. 295, Noviembre 1996.
9. García-Barreto, J.A., 1997 “La Inmensidad del Espacio: El Sol y su Sistema Planetario”, *Ciencia Ergo Sum* (Revista de la Universidad Autónoma del Estado de Mexico, Toluca, Mexico), Vol. 4, Num 1, pag. 75, Marzo 1997.
10. García-Barreto, J.A., Moreno-Diaz, E., Bernal-Marin, T. 2010 “Galaxias de Disco con Barra”, *Ciencia* (Academia Mexicana de Ciencias), Vol. 61, Num. 4, p. 74

6. TECHNICAL REPORT:

1. Garcia-Barreto, J.A., Pichardo Silva, B. 1994 Internal Report CI-94-01, Instituto de Astronomia, UNAM, software “Data bank of Nearby Disk Galaxies with Stellar Bar”.

7. PATENTS and COPYRIGHTS:

1. Garcia-Barreto, J.A., Pichardo Silva, B. 1993 “Barred Spiral Galaxies: Data Catalog software”, Registro 11001, libro 16, Fojas 247 Direccion General de Derechos de Autor, SEP, Mexico, June 1993.
2. Garcia-Barreto, J.A., Carrillo, R. 1998 “Images of Barred Spiral Shapel Ames Galaxies”, registro INDAUTOR 03-1999-012611061500-14

8. BOOKS (in Spanish)

1. Chapter : [Invisible Astronomy] Astronomias Invisibles, en *Astronomia Contemporanea [Contemporary Astronomy]*, Ed. Luis F. Rodriguez, publisher UNAM, Mexico, City 1983.
2. Chapter : [Compact Sources of Radio Emission in Region of Star Formation] Fuentes Compactas de Ondas de Radio en Regiones de Formacion Estelar, en *Temas Selectos de Astrofisica [Selected Topics of Astrophysics]*, Ed. Manuel Peimbert, Publisher UNAM, Mexico, City 1984.
3. **Single Author:** title :**Astronomia Basica [Basic Astronomy]**, ISBN 968-16-6092-7, publisher: Fondo de Cultura Economica, Mexico, City June 2000.
4. **Co-author:** title: **Soluciones de Problemas de Teoria Electromagnetica [Solutions to Problems of Electromagnetic Theory]**, publisher: Las Prensas de Ciencias [School of Sciences], UNAM, Mexico City, ISBN 970-32-1151-8, Oct. 2006
5. **Single Author:** title: **Introduccion a Radio Astronomia [Introduction to Radio Astronomy]** *Digital Book*, Digital Library UNAM, Mexico City, ISBN 968-6116-41-9

9. TRANSLATIONS OF BOOKS and ARTICLES (from English to Spanish):

1. **El Origen del Calendario**, 2000, Original title: *The Romance of the Calendar*, P.W. Wilson, Publisher W.W. Norton, & Co. Inc. N.Y. 1937, in <http://www.astroscu.unam.mx/tony/espanol/jagb-divulg.html>
2. **Masa de Gas Molecular y Emision Infrarroja de Galaxias Luminosas Distantes**, Dic 2001, original title: *Molecular Gas Mass and Infrared Emission from Luminous Distant Galaxies*, 1993, ApJ, 414, L13, in <http://www.astroscu.unam.mx/tony/espanol/jagb-divulg.html>
2. **Estadistica Practica para Astronomos**, May 2004, original title: *Practical Statistics for Astronomers*, J. V. Wall, 1979, QJAS, 29, 138 in <http://www.astroscu.unam.mx/tony/espanol/jagb-divulg.html>
3. **Determinacion de Masa de Gas Molecular (Extragalactica) a partir de Observaciones de CO**, May 2006, original title: *Determination of Molecular Mass from CO Observations*, P. Maloney, 1990, in *The Interstellar Medium in Galaxies*, Ed. H.A. Thronson & J.M. Schull, Dordrecht: Kluwer Academic Publisher, p. 493 in <http://www.astroscu.unam.mx/tony-divulg.html>
4. **Primeros Resultados del Interferometro CAARA II: Una Descripcion del Instrumento**, Jun 2007, original title: *First Results from the Chara Array II: A Description*

of the Instrument, 2005, ApJ, 628, 453 - 465 in <http://www.astroscu.unam.mx/tony/espanol/jagb-divulg.html>

5. **Inestabilidades: La Longitud de Jeans y el Criterio de Toomre**, Oct 2007, original title: *Instabilities: Jeans Length and Toomre's Criterion*, 1989 in *The Milky Way as a Galaxy*, eds. G. Gilmore, I. R. King, & P. van der Kruit, Mill Valley California, University Science Books, in <http://www.astroscu.unam.mx/tony/espanol/jagb-divulg.html>
6. : **Breve Introduccion a Termodinamica, El Gas Ideal de Fermi, y la Teoría de las Estrellas Enanas Blancas**, September 2012, original title: *Statistical Mechanics*, 1963, Prof. Kerson Huang, New York: John Wiley & Sons, Inc. in <http://www.astroscu.unam.mx/tony/espanol/jagb-divulg.html>.

11. STUDENT ADVISORY.

1. Thesis

3. Thesis adviser, Jonathan Leon-Tavares, MSc., Astrophysics, INAOE, 2004 - 2005 "Radio Counter Parts in Abell Clusters: Nuclear activity and Star Formation"
2. Thesis adviser, Santiago Venegas-Martinez, MSc., School of Engineering, UNAM, Jan 1994-Feb 1995 "Digital Processing of Astronomical Imaging by means of Polynomial Transforms."
1. Thesis director, Bárbara S. Pichardo Silva, BSc, School of Sciences, UAEM, Toluca. Apr 1993 - 1995 "Physical Conditions in Circumnuclear Structures in barred spiral galaxies."

2. Academic Activities

- Coordinator, General Exam to enter PhD program, Instituto de Astronomia, UNAM, Aug 1994.
- Member Graduate Student Advisory Committee Instituto de Astronomia, UNAM Apr 1995-Jul 1997.
- Member of the Library Committee, Instituto de Astronomia, UNAM Apr 1995-Jul 1997.
- Member of Physics Board of the School of Sciences representing IA-UNAM, UNAM, Mar 1996 - Jul 1997
- Coordinator of the Academic Exchange program between the State University of New Mexico and IA-UNAM (May 1996 - Jul 1997)
- Office manager for colleagues, students and visitors IA-UNAM, Apr 1995 - Jul 1997 and Nov 1998.
- Member of the jury (representing IA-UNAM) of the Third Contest How is Science Done? 1997 organized by the Departamento de Educacion, Estado de Mexico, May 1997.
- Advisor to the Secretary of Foreign Relations (Mexico) for scholarships from the Embassy of Spain, Apr 1997.
- Member of the Academic University Committee representing Instituto de Astronomia for Physical Sciences UNAM: 2002 - 2006
- Member of the University Council representing Instituto de Astronomia UNAM: Jul 2002 - 2006
- Member of the Committee of Cultural Activities of the University Council UNAM: Oct 2002 - 2006
- President of the Faculty Members at the Instituto de Astronomia, UNAM, Jun 2004 - Jul

2005

- President (re-elected) of the Faculty Members at the Instituto de Astronomia, UNAM, Jul 2005 - Jul 2006

3. Student supervision

- Tutor Social Service of Bárbara S. Pichardo Silva, undergraduate student from the School of Sciences (Physics), UAEM, Toluca. Sept 1991 – Jan 1993.
- Tutor of 4 students of master program in Astronomy, Instituto de Astronomia UNAM.
- Thesis reader of 8 PhD students in Astrophysics.
- Thesis reader of 4 MSc students in Astrophysics.
- Thesis reader of 1 MSc student in Computational Astrophysics.
- Thesis reader of 1 MSc student in Computational Science.
- Thesis reader of 1 Msc student in History of Science.
- Thesis reader of 6 BSc students in Physics.

4. Former Students who have attended course(s) that I have taught

1. Dr. Alberto Carramiñana. Now at INAOE, Tonanzintla, Estado de Puebla, Mexico.
2. Dr. Rene Carrillo. Now at Instituto de Astronomia, UNAM, Mexico, City.
3. Dr. Raul Michel. Now at Observatorio Astronomico Nacional (OAN), UNAM, Ensenada, Baja California, Mexico
4. Dr. Mauricio Reyes. Now at OAN, UNAM, Ensenada, Baja California, Mexico
5. Dr. Hector Aceves. Now at OAN, UNAM, Ensenada, Baja California, Mexico
6. Dr. Fernando Rojas. Now at Centro de Materia Condensada, UNAM, Ensenada, Baja California, Mexico
7. Dr. Raquel Diaz-Hernandez. Now at INAOE, Tonanzintla, Puebla, Mexico

12. AWARDS

- October, 2012 Prize in the field of Science from the Government of the City of Metepec, State of Mexico, MEXICO
- Aug 2003 – Feb 2004 Visitor in Astronomy Dept. of Physics, Mathematics and Astronomy, Caltech, USA.
- Aug 1997 – Jul 1998 Visiting Scientist Astronomy Dept. Univ of Minnesota, USA.
- Aug 1997 – Jul 1998 Financial Support from CONACyT (Mexico) for a sabbatical stay at the Dept of Astronomy, Univ of Minnesota, USA.
- Sept 1993 – Proposed by Instituto de Astronomia de la UNAM to participate in the contest Young Scientist at UNAM, Mexican Academy of Science and Organization of American States.
- Mar 1993 – Member of the Mexican Academy of Sciences, Mexico City
- Aug 1989 – Jan 1990 and July 1990 – June 1991 Fellowship for Junior Distinguished Scholars, Alexander von Humboldt Foundation, Germany
- Feb 1990 a Jun 1990 Fellowship for Distinguished Scholars, Max Planck Society, Germany.
- May 1985 Chosen among the top 10 finalists in order to choose the Load Specialist in the Space Shuttle organized by the Mexican Secretariat of Communications and Transportation, Mexico, City, Mexico.

- May 1984 - Member of the Sistema Nacional de Investigadores (SNI), Mexico, file 1372.
- Jun 1977 - May 1982 Research assistanship, Research Laboratory of Electronics, MIT under the supervision of Prof. Bernard F. Burke, Cambridge, Mass. E.U.A.
- May 1977 - Jun 1982 Scholarship from CONACYT (Mexico) to pursue doctoral studies.
- Feb 1977 - May 1977 Singh Fellow Tuition Scholarship, Department of Physics, MIT, Cambridge, Mass. E.U.A.
- Nov 1976 Named among the "Best Students in Mexico" Class 1976, National Association of Arts and Sciences(Asociacion Nacional de Artes y Ciencias), Mexico, City, Mexico.
- Sep 1973 - Jun 1976 Tuition Scholarship, Universidad de las Americas, Cholula, Puebla, Mexico.

13. SCIENTIFIC SOCIETIES:

- 1998 - Member of the Mexican Society of Physics.
- 1993 - Member of the Mexican Academy of Sciences, Mexico City.
- 1986 - Member of the International Astronomical Union
- 1984 - Member of the National System of Researchers in Basic Science, Mexico, 90-A-1372.
- 1979 - Member American Astronomical Society
- 1974 - 1977 Member IEEE.

14. OTHER INFORMATION

REFeree IN INTERNATIONAL JOURNALS OF ASTRONOMY AND ASTROPHYSICS:

- 1983 - Referee Revista Mexicana de Astronomia y Astrofisica.
- 1993 - Referee Astronomy and Astrophysics.

REFeree CONACYT (MEXICO):

- 1991 - Referee of international projects presented to CONACYT in the area of Physical Sciences.
- 1991 - Invited Referee in the Ad-Hoc committee for the project LMT-GTM.

15. RECENT INTERNATIONAL COLLABORATIONS

- Nick, Z. Scoville, Caltech, Department of Millimeter Radio Astronomy, U.S.A.
- Y.D. Mayya, INAOE , Mexico.
- Jin Koda, Caltech, Department of Millimeter Radio Astronomy, U.S.A
- Kartik Sheth, Caltech, Department of Millimeter Radio Astronomy, U.S.A.
- L. Rudnick Department of Astronomy, Univ of Minnesota, U.S.A.
- F. Combes, Obs de Paris/Meudon, France
- G. Canalizo Institute for Astronomy, U. Hawaii, Hawaii, U.S.A.
- B. Koribalski, Australia Telescope National Facility, Australia
- R.-J. Dettmar, University of Ruhr, Germany.
- D. Downes, I.R.A.M., Grenoble, France
- W.K.Huchtmeier, Max Planck Institut für Radioastronomie, Bonn

- M. Gerin, Ecole Normale Superior, Paris, France
- C. Magri, Department of Physics, West Georgia College, Carrollton, GA 30118, U.S.A.
- J.M. Moran, Harvard Smithsonian Center for Astrophysics, Cambridge, Mass, U.S.A.
- M.J. Reid, Harvard-Smithsonian Center for Astrophysics, Cambridge, Mass, U.S.A.
- B.F. Burke, Massachusetts Institute of Technology, MIT, Cambridge, Mass, U.S.A.
- R.C. Walker, National Radio Astronomy Observatory, NRAO, Socorro, New Mexico, U.S.A.
- A. Haschick, MIT, Cambridge, Mass, U.S.A.
- C. Bennett, MIT, Cambridge, Mass, U.S.A.
- C. Lawrence, MIT, Cambridge, Mass, U.S.A.
- P. Greenfield, MIT, Cambridge, Mass, U.S.A.

16. ABBREVIATIONS

ApJ: The Astrophysical Journal, University of Chicago Press.

AJ: The Astronomical Journal, University of Chicago Press.

Ap.J.Suppl.: The Astrophysical Journal Supplement Series.

A&A: Astronomy and Astrophysics, a European journal.

Rev.Mex. Astron.Astrof.: Revista Mexicana de Astronomia y Astrofísica, Instituto de Astronomia, UNAM.

I.A.U.: International Astronomical Union

BAAS: Bulletin of the American Astronomical Society.

VLBI: Very Long Baseline Interferometry .

VLA: Very Large Array, New Mexico, USA)

Current Hobbies: squash, frontenis, table tennis, tennis, swimming, spinning, jogging, listen to soft mellow music, listen to soft classical music, watch soccer games live and on tv, watch romantic, thriller, & action movies, play dominoes, play (poker) cards, play chess and backgammon.

January 2013