

## **Dr. Emmanuel Momjian**

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### **Personal Information**

Citizenship: United States of America (of Armenian descent).  
Marital Status: Married.

### **Education**

Ph.D. in Physics, University of Kentucky, 2003, GPA 4.0  
Thesis Title: Sensitive Very Long Baseline Interferometry Studies of Interacting/Merging Galaxies.  
Thesis advisers: Dr. Thomas H. Troland (U. Kentucky), Dr. Jonathan D. Romney (NRAO).  
M.S. in Physics, University of Kentucky, 2001, GPA 4.0  
Post Graduate Diploma in Physics (Solid State-Electronics), University of Aleppo, Aleppo, Syria, 1997.  
B.Sc. in Physics and Chemistry (double major), University of Aleppo, Aleppo, Syria, 1996.

### **Research Interests**

High redshift radio-loud quasars and starburst galaxies.  
Luminous and Ultra-luminous IR galaxies, and Megamaser galaxies.  
Seyfert galaxies.  
Extragalactic H I.  
Star forming regions and magnetic fields (through Zeeman Splitting).  
Radio observational techniques (Single dish, Multi-beam feed arrays, Radio Interferometry, (VLA, EVLA, MERLIN), Very Long Baseline Interferometry (VLBI; VLBA, HSA, EVN, Global); radio continuum, spectroscopy, and polarimetry).

## Research appointments

*March 2014– current*

Scientist/A, NRAO.

*Jan. 2011– March 2014*

Associate Scientist/A, NRAO.

*Oct. 2007– Dec. 2010*

Assistant Scientist/A, NRAO.

*Dec. 2005– Oct. 2007*

Research Associate, Arecibo Observatory, NAIC/Cornell U.

*Oct. 2003– Nov. 2005*

Post-Doctoral Research Associate, Arecibo Observatory, NAIC/Cornell U.

*2000–2003*

NRAO Pre-Doctoral Associate with Dr. J. D. Romney.

*Summer 2000*

NRAO Summer Student with Dr. J. D. Romney.

*Summer 1999*

Summer Research Assistantship with Dr. J. D. Romney, NRAO.

*Summer 1998*

Summer Research Assistantship with Dr. I. Shlosman and Dr. S. Bhavsar, U. Kentucky.

## Teaching appointments

*Spring 1998–Summer 2000*

Graduate Teaching Assistant for Introductory Astronomy, U. Kentucky.

*Fall 1997*

Physics instructor, Armenian Karen Jeppe College, Aleppo, Syria.

*Fall 1996–Spring 1997*

Lecturer and physics lab instructor, University of Aleppo, Aleppo, Syria.

## Academic Awards & Fellowships

*2000–2003*

NRAO Pre-Doctoral Research Assistantship.

*1996*

Martyr Bassel Al-Assad Presidential Award for Superior Graduates, University of Aleppo, Aleppo, Syria.

*1994*

Martyr Bassel Al-Assad Presidential Award for Superior Students, University of Aleppo, Aleppo, Syria.

## Membership in Professional Organizations

*2001–current*

American Astronomical Society.

*2006–current*

International Astronomical Union.

## Professional Activities

*2015–current*

VLA/VLBA Scientific User Support Group Lead.

*2015–2017*

Member, Arecibo Observatory Users Committee.

*2013*

Member, NRAO Scientific Staff Policy Manual revision committee.

*2013–2015*

VLA Pipeline Operations Scientist.

*2011–current*

Member, the NRAO RSRO/ECISO Committee.

*2010–2012*

Member, NRAO Library Advisory Committee.

*2007–current*

EVLA/VLA/VLBA Scientific and User Support.

*2007–current*

Expanded Very Large Array (EVLA) Commissioning.

*2006–current*

ApJ, AJ, MNRAS, A&A, ANSEF referee.

*2006–2007*

The representative of the Extragalactic Arecibo L-Band Feed Array (E-ALFA) surveys at NAIC-Arecibo Observatory.

*2006*

Member, the Arecibo Observatory Director Search Committee.

*2005–2013*

Member, the Oversight Committee of the ALFALFA (Arecibo Legacy Fast ALFA) Survey.

*2003–2007*

Member of the VLBI and eVLBI operations team of the Arecibo Observatory.

*2003–2007*

Web master of the astronomy pages of the Arecibo Observatory.

*2003–2007*

Friend of the C-High (6-8 GHz) receiver of the Arecibo radio Telescope.

2017

Organizer, *The 6th VLA Data Reduction Workshop*, Socorro, NM

2017

Organizer, *The NRAO/LBO/GBO Community Days at Cornell U.*, Ithaca, NY

2017

Organizer, *The NRAO/LBO Community Days at UNAM*, Morelia, Mexico

2017

Organizer, *The NRAO/LBO Community Day at U. Michigan*, Ann Arbor, MI

2016

Co-organizer, *The NRAO Synthesis Imaging Workshop*, Socorro, NM

2012

Co-organizer, *ASIAA Workshop on The Karl G. Jansky Very Large Array*,  
Taipei, Taiwan, September 3-4, 2012.

2011

Co-organizer, *Radio Astronomy & The ISM*,  
Durango, CO, May 2011.

2008

Co-organizer, *The EVLA Vision: Galaxies through Cosmic Time*,  
Socorro, NM, December 2008.

2007–2008

Co-organizer, *The Evolution of Galaxies through the Neutral Hydrogen Window*,  
Arecibo, PR, February 2008.

2006

Co-organizer, *Building the Foundation for U.S. Astronomy at m/cm Wavelengths in 2010  
and Beyond*, Tuscon, AZ.

2005

Co-organizer, *Third NAIC-NRAO Single Dish Summer School*, Arecibo Observatory,  
Arecibo, PR.

2004

Co-organizer, *Diffuse Matter in the Galaxy: Observations Confront Theory*, Arecibo  
Observatory, Arecibo, PR.

2017-current

Supervisor of the NRAO Reber doctoral fellow, Ms. M. Sanchez.

2017

Supervisor of the NRAO Summer student, Ms. A. Moore.

2016

Supervisor of the NRAO Summer student, Mr. J. Potvin.

2016

Co-Supervisor of the NRAO Summer student, Mr. K. Garimella.

2015

- Member of the M.Sc. Dissertation Committee of Ms. I. Bautista.  
*2014*
- Co-Supervisor of the NRAO Summer student, Ms. G. Johnson.  
*2014*
- Supervisor of the NRAO Summer graduate student, Mr. H. Gim.  
*2014*
- Supervisor of the NRAO Summer student, Ms. J. Gross.  
*2012*
- Co-Supervisor of the Carnegie Observatories Summer student, Mr. D. Z. Dong.  
*2012*
- Co-Supervisor of the NRAO Summer graduate student, Ms. L. K. Morabito.  
*2011*
- Supervisor of the NRAO Summer graduate student, Mr. S. Merriman.  
*2010*
- University of Maryland Special Graduate Faculty member, and a member of the  
Ph.D. Dissertation Committee of Ms. B. A. Zauderer.  
*2010*
- Supervisor of the NRAO Summer graduate student, Mr. M. Rickert.  
*2009*
- Supervisor of the NRAO Summer graduate student, Ms. M. Pastorius.  
*2007*
- Co-Supervisor of the NAIC, Arecibo Observatory Summer student, Ms. R. Lamm.  
*2006*
- Co-Supervisor of the NAIC, Arecibo Observatory Summer student, Ms. X. M. Fernandez.  
*2005*
- Supervisor of the NAIC, Arecibo Observatory Summer student, Ms. F. M. Day.

### **Technical Schools and Meetings Attended**

3. "Third International VLBI Science (IVS) Operational Workshop", Haystack Observatory, Westford, MA, May 2005.
2. "Eighth Synthesis Imaging Summer School", NRAO, Socorro, NM, June 2002.
1. "Seventh Synthesis Imaging Summer School", NRAO, Socorro, NM, June 2000.

## Books

1. "The Evolution of Galaxies Through the Neutral Hydrogen Window" eds. R. Minchin & **E. Momjian**, 2008, AIP Conference Proceedings Series, Vol. 1035.

## Refereed Publication List

81. "Star Formation in Radio Survey: Jansky Very Large Array 33 GHz Observations of Nearby Galaxy Nuclei and Extranuclear Starforming Regions" Murphy, E., Dong, D., **Momjian, E.**, Linden, S., Kennicutt, R., Meier, D., Schinnerer, E., and Turner, J., 2017, ApJ accepted.  
<http://arxiv.org/abs/1711.03976>
80. "The Faint Radio Sky: VLBA Observations of the COSMOS Field" Herrera Ruiz, N., Middelberg, E., Deller, A., Norris, R., Best, P., Brisken, W., Schinnerer, E., Smolcic, V., Delvecchio, I., **Momjian, E.**, Bomans, D., Scoville, N., and Carilli, C., 2017, A&A, 607, 132.  
<http://arxiv.org/abs/1707.07512>
79. "A 33 GHz Survey of Local Major Mergers: Estimating the Sizes of the Energetically Dominant Regions from High Resolution Measurements of the Radio Continuum" Barcos-Munoz, L., Leroy, A., Evans, A., Armus, L., Condon, J., Diaz-Santos, T., Mazzarella, J., Meier, D., **Momjian, E.**, et al., 2017, ApJ, 843, 117.  
<http://arxiv.org/abs/1705.10801>
78. "Survey of Water and Ammonia in Nearby Galaxies (SWAN): Resolved Ammonia Thermometry, Water and Methanol Masers in the Nuclear Starburst of NGC 253" Gorski, M., Ott, J., Rand, R., Meier, D., **Momjian, E.**, Schinnerer, E., 2017, ApJ, 842, 124.  
<http://arxiv.org/abs/1705.07103>
77. "The Hawaii SCUBA-2 Lensing Cluster Survey: Radio-Detected Submillimeter Galaxies in The HST Frontier Fields" Hsu, L-Y, Desai, V., Murphy, E., Cowie, L., Heywood, I., **Momjian, E.**, Barger, A., Smail, I., 2017, ApJ, 840, 29.  
<http://arxiv.org/abs/1704.01159>
76. "The GOODS-N Jansky VLA 10 GHz Pilot Survey: Sizes of Star-Forming  $\mu$ Jy Radio Sources" Murphy, E., **Momjian, E.**, Condon, J., Chary, R-R, Dickinson, M., Inami, H., Taylor, R., Weiner, B., 2017, ApJ, 839, 35.  
<http://arxiv.org/abs/1702.06963>
75. "Milliarcsecond Imaging of the Radio Emission from the Quasar with the Most Massive Black Hole at Reionization" Wang, R., **Momjian, E.**, Carilli, C. L., Wu, X., Fan, X., Walter, F., Strauss, M., Wang, F., Jiang, L., 2017, ApJL, 835, 20.  
<http://arxiv.org/abs/1701.03260>

74. "The Zeeman Effect in the 44 GHz Class I Methanol Maser Line toward DR21(OH)" **Momjian, E.**, Sarma, A. P., 2017, ApJ, 834, 168.  
<http://arxiv.org/abs/1610.09047>
73. "HI 21-cm absorption survey of quasar-galaxy pairs: Distribution of cold HI gas around  $z < 0.4$  galaxies" Dutta, R., Srianand, R., Gupta, N., **Momjian, E.**, Noterdaeme, P., Petitjean, P., Rahmani, H., 2017, MNRAS, 465, 588.  
<http://arxiv.org/abs/1610.05316>
72. "A High-resolution Analysis of Molecular Lines in Arp 220: Temperature, Morphology, and Kinematics" Zschaechner, L., Ott, J., Walter, F., Meier, D., **Momjian, E.**, Scoville, N., 2016, ApJ, 833, 41.  
<http://arxiv.org/abs/1609.04824>
71. "New Constraints on the Molecular Gas in the Prototypical HyLIRGs BRI1202-0725 & BRI1335-0417" Jones, G. C., Carilli, C. L., **Momjian, E.**, Wagg, J., Riechers, D. A., Walter, F. McMahon, R., de carli, R., Ota, K., 2016, ApJ, 830, 63.  
<http://arxiv.org/abs/1607.06755>
70. "Probing the interstellar medium and star formation of the Most Luminous Quasar at  $z=6.3$ " Wang, R., Wu, X., Neri, R., Fan, X., Walter, F., Carilli, C., **Momjian, E.**, et al. 2016, ApJ, 830, 53.  
<http://arxiv.org/abs/1606.09634>
69. "Highest Redshift Image of Neutral Hydrogen in Emission: A CHILES Detection of a Starbursting Galaxy at  $z = 0.376$ " Fernandez, X., Gim, H., van Gorkom, J. H., Yun, M., **Momjian, E.**, et al., 2016, ApJ, 824, 1.  
<http://arxiv.org/abs/1606.00013>
68. "Invisible Active Galactic Nuclei. II. Radio Morphologies & Five New HI 21cm Absorption Line Detections" Yan, T., Stocke, J., Darling, J., **Momjian, E.**, Sharma, S., Kanekar, N., 2015, AJ, 151, 74.  
<http://arxiv.org/abs/1512.07707>
67. "The Arecibo Galaxy Environment Survey IX: The Isolated Galaxy Sample" Minchin, R. F, Auld, R., Davies, J. I. Karachentsev, I. D., Keenan, O. C., **Momjian, E.**, Rodriguez, R., Taber T., Taylor, R., 2015, MNRAS, 455, 3430.  
<http://arxiv.org/abs/1510.08715>
66. "Imaging SKA-Scale data in three different computing environments" Dodson, R., Vinsen, K., Wu, C., Popping, A., Meyer, M., Wicenc, A., van Gorkom J., **Momjian, E.**, 2015, A&C, 14, 8.  
<http://arXiv.org/abs/1511.00401>

65. "A Search for Giant Radio Galaxy Candidates and Their Radio-Optical Follow-up" Santiago-Bautista, I. del C., Rodriguez-Rico, C. A., Andernach, H., Coziol, R., Torres-Papaqui, J. P., Jimnez Andrade, E. F., Plauchu-Frayn, I., **Momjian, E.**, 2016, *ASSP*, 42, 231.  
<https://arxiv.org/abs/1504.07478>
64. "Microwave Continuum Emission and Dense Gas Tracers in NGC3627: Combining Jansky VLA and ALMA Observations" Murphy, E., Dong, D., Leroy, A., **Momjian, E.**, Condon, J., Helou, G., Meier, D., Ott, J., Schinnerer, E., Turner, J., 2015, *ApJ*, 813, 118.  
<http://arXiv.org/abs/1508.06284>
63. "HI 21cm emission from the sub-damped Lyman-alpha absorber at  $z = 0.0063$  towards PG1216+069" Chengalur, J., Ghosh, T., Salter, C., Kanekar, N., **Momjian, E.**, Keeney, B., Stocke, J., 2015, *MNRAS*, 453, 3135.  
<http://arxiv.org/abs/1508.02825>
62. "Circumnuclear and infalling HI gas in a merging galaxy pair at  $z = 0.123$ " Srianand, R., Gupta, N., **Momjian, E.**, and Vivek, M., 2015, *MNRAS*, 451, 917.  
<http://arxiv.org/abs/1505.01551>
61. "The ALFA ZOA Deep Durvey: First Results" McIntyre, T. P., Henning, P. A., Minchin, R. F., **Momjian, E.**, Butcher, Z., 2015, *AJ*, 150, 28.  
<http://arxiv.org/abs/1506.07143>
60. "Galaxy Pairs in the Sloan Digital Sky Survey - X: Does gas content alter star formation rate enhancement in galaxy interactions?" Scudder, J. M., Ellison, S. L., **Momjian, E.**, Rosenberg, J. L., Torrey, P., Patton, D. R., Fertig, D., Mendel, J. T., 2015, *MNRAS*, 449, 3719.  
<http://arxiv.org/abs/1503.05194>
59. "Cold parsec-scale gas in a  $z_{abs} \sim 0.1$  sub-DLA with disparate H<sub>2</sub> and 21-cm absorption" Dutta, R., Srianand, R., Muzahid, S, Gupta, N., **Momjian, E.**, Charlton, J., 2015, *MNRAS*, 448, 3718.  
<http://arxiv.org/abs/1502.01354>
58. "High-Resolution Radio Continuum Measurements of the Nuclear Disks of Arp 220" Barcos-Munoz, L., Leroy, A. K., Evans, A. S., Privon, G. C., Armus, L., Condon, J., Mazzarella, J. M., Meier, D., **Momjian, E.**, Murphy, E. J., Ott, J., Reichardt, A., Sakamoto, K., Sanders, D. B., Schinnerer, E., Stierwalt, S., Surace, J. A., Walter, F., 2014, *ApJ*, 799, 10.  
<http://arxiv.org/abs/1411.0932>
57. "J1649+26: A Grand-Design Spiral with a Large Double-Lobed Radio Source" Mao, M., Owen, F., Duffin, R., Keel, W., Lacy, M., **Momjian, E.**, Morrison, G., Mroczkowski, T., Neff, S., Norris, R., Schmitt, H., Toy, V., Veilleux, S., 2014, *MNRAS*, 446, 4176.  
<http://arxiv.org/abs/1410.8520>



56. "Small-scale Properties of Atomic Gas in Extended Disks of Galaxies" Borthakur, S., **Momjian, E.**, Heckman, T. M., York, D. G., Bowen, D. V., Yun, M. S., Tripp, T. M., 2014, ApJ, 795, 98.  
<http://arxiv.org/abs/1409.3987>
55. "The Spin Temperature of High-redshift Damped Lyman- $\alpha$  Systems" Kanekar, N., Prochaska, J. X., Smette, A., Ellison, S. L., Ryan-Weber, E. V., **Momjian, E.**, Briggs, F. H., Lane, W. M., Chengalur, J. N., Delafosse, T., Grave, J., Jacobsen, D., de Bruyn, A. G., 2014, MNRAS, 438, 2131.  
<http://arxiv.org/abs/1312.3640>
54. "The Highest Redshift Quasar at  $z = 7.085$ : A Radio Quiet Source" **Momjian, E.**, Carilli, C., Walter, F., Venemans, B., 2014, AJ, 147, 6.  
<http://arxiv.org/abs/1310.7960>
53. "Measuring Magnetic Fields Near and Far with the SKA via the Zeeman Effect" Robishaw, T., Green, J., Surcis, G., Vlemmings, W. H. T., Richards, A. M. S., Etoaka, S., Bourke, T., Fish, V., Gray, M. D., Imai, H., Kramer, B., McBride, J., **Momjian, E.**, Sarma, A. P., Zijlstra, A. A., Proceedings of Advancing Astrophysics with the Square Kilometre Array (AASKA14), 2014.
52. "A Pilot for a Very Large Array H I Deep Field" Fernandez, X., van Gorkom, J. H., Hess, K. M., Pisano, D. J., Kreckel, K., **Momjian, E.**, Popping, A., Oosterloo, T., Chomiuk, L., Verheijen, M. A. W., Henning, P. A., Schiminovich, D., Bershad, M. A., Wilcots, E. M., Scoville, N., 2013, ApJL, 770, 29.  
<http://arxiv.org/abs/1303.2659>
51. "A search for HI 21cm absorption towards a radio-selected quasar sample II: a new low spin temperature DLA at high redshift" Kanekar, N., Ellison, S. L., **Momjian, E.**, York, B. A., and Pettini, M., 2013, MNRAS, 428, 532.  
<http://arxiv.org/abs/1301.3424>
50. "Parsec-scale structures and diffuse bands in a translucent interstellar medium at  $z \sim 0.079$ " Srianand, R., Gupta, N., Rahmani, H., **Momjian, E.**, Petitjean, P., Noterdaeme, P., 2013, MNRAS, 428, 2198.  
<http://arxiv.org/abs/1210.3036>
49. "Comparison of Two Epochs of the Zeeman Effect in the 44 GHz Class I Methanol Maser Line in OMC-2" **Momjian, E.**, and Sarma, A. P., 2012, AJ, 144, 189.  
<http://arxiv.org/abs/1210.5951>
48. "Very Large Array Detection of the 36 GHz Zeeman Effect in DR21W Revisited" **Momjian, E.**, Sjouwerman, L. O., Fish, V. L., 2012, ApJ, 757, 30.  
<http://arxiv.org/abs/1207.5473>

47. "HI content, metallicities and spin temperatures of damped and sub-damped Lyman alpha systems in the redshift desert ( $0.6 < z < 1.7$ )" Ellison, S. L., Kanekar, N., Prochaska, J. X., **Momjian, E.**, Worseck, G., 2012, MNRAS, 424, 293.  
<http://arxiv.org/abs/1205.1200>
46. "Discovery and Follow-up of a Nearby Galaxy from the Arecibo Zone of Avoidance Survey" McIntyre, T., Minchin, R., **Momjian, E.**, Henning, P., Kaur, A., Parton, B., 2011, ApJL, 739, 26.  
<http://arxiv.org/abs/1107.4343>
45. "Complex Radio Spectral Energy Distributions in Luminous and Ultraluminous Infrared Galaxies" Leroy, A., Evans, A., **Momjian, E.**, Murphy, E., Ott, J., Armus, L., Condon, J., Haan, S., Meier, D., Privon, G., Schinnerer, E., Surace, J., Walter, F., Mazzarella, J., 2011, ApJL, 739, 25.  
<http://arxiv.org/abs/1107.4109>
44. "Imaging of the CCS 22.3 GHz emission in the Taurus Molecular Cloud complex" Roy, N., Datta, A., **Momjian, E.**, Sarma, A., 2011, ApJL, 739, 4.  
<http://arxiv.org/abs/1106.4011>
43. "The Arecibo Galaxy Environments survey IV: the NGC7448 region and the HI mass function" Davies, J. I., Auld, R., Burns, L., Minchin, R., **Momjian, E.**, Schneider, S.; Smith, M.; Taylor, R.; van Driel, W., 2011, MNRAS, 415, 1883.  
<http://arxiv.org/abs/1104.0507>
42. "Water Vapour at High Redshift: Arecibo Monitoring of the Megamaser in MG J0414-0534" Castangia, P., Impellizzeri, C. M. V., McKean, J. P., Henkel, C., Brunthaler, A., Roy, A. L., Wucknitz, O., Ott, J., **Momjian, E.**, 2011, A&A, 529, 150.  
<http://arxiv.org/abs/1103.4301>
41. "Discovery of the Zeeman Effect in the 44 GHz Class I Methanol (CH<sub>3</sub>OH) maser line" Sarma, A. P., & **Momjian, E.**, 2011, ApJL, 730, 5.  
<http://arxiv.org/abs/1102.2411>
40. "The GALEX Ultraviolet Virgo Cluster Survey (GUViCS). I: The UV luminosity function of the central 12 sq.deg" Boselli, A., Boissier, S., Heinis, A., *several authors*, **Momjian, E.**, et al., 2011, A&A, 528, 107.  
<http://arxiv.org/abs/1102.1316>
39. "The Arecibo Methanol Maser Galactic Plane Survey-IV: Accurate Astrometry and Source Morphologies" Pandian, J. D., **Momjian, E.**, Xu, Y., Menten, K. M., Goldsmith, P. F., 2011, ApJ, 730, 55.  
<http://arxiv.org/abs/1102.0590>

38. "A GBT Survey for HI 21 cm Absorption in the Disks and Halos of Low-Redshift Galaxies" Borthakur, S., Tripp, T. M., Yun, M. S., Bowen, D. V., Meiring, J. D., York, D. G., & **Momjian, E.**, 2010, ApJ, 727, 52.  
<http://arxiv.org/abs/1007.3936>
37. "Deep 21-cm HI Observations at  $z \approx 0.1$ : The Arecibo Ultra Deep Survey" Freudling, W., Staveley-Smith, L., Catinella, B., Minchin, R., Calabretta, M., **Momjian, E.**, Zwaan, M., Meyer, M., O'Neil, K., 2010, ApJ, 727, 40.  
<http://arxiv.org/abs/1011.0877>
36. "Total Molecular Gas Masses of  $z \sim 3$  Lyman-Break Galaxies: CO(J=1-0) Emission in MS 1512-cB58 and the Cosmic Eye" Riechers, D. A., Carilli, C. L., Walter, F., & **Momjian, E.**, 2010, ApJL, 724, 153.  
<http://arxiv.org/abs/1010.4299>
35. "The Arecibo Galaxy Environment Survey III: Observations of the Galaxy Pair NGC 7332/7339 and the Isolated Galaxy NGC 1156" Minchin, R. F., **Momjian, E.**, Auld, R., Davies, J. I., et al., 2010, AJ, 140, 1093.  
<http://arxiv.org/abs/1009.4438>>astro-ph/1009.4438
34. "Spectral Energy Distributions of 6.7 GHz Methanol Masers" Pandian, J. D., **Momjian, E.**, Xu, Y., Menten, K. M., Goldsmith, P. F., 2010, A&A, 522, 8  
<http://arxiv.org/abs/1007.4223>>astro-ph/1007.4223
33. "The Arecibo L-band Feed Array Zone of Avoidance Survey I: Precursor Observations through the Inner and Outer Galaxy" Henning, P. A., Springob, C. M., Minchin, R. F., **Momjian, E.**, et al., 2010, AJ, 139, 2130.  
<http://arxiv.org/abs/1002.2933>>astro-ph/1002.2933
32. "A Radio Spectral Line Study of the 2-Jy IRAS-NVSS Sample: I" Fernandez, X. M., **Momjian, E.**, Salter, C. J., Ghosh, T., 2010, AJ, 139, 2066.  
<http://arxiv.org/abs/1003.4047>>astro-ph/1003.4047
31. "Using 21 cm Absorption in Small Impact Parameter Galaxy-QSO Pairs to Probe Low-Redshift Damped and Sub-Damped Lyman- $\alpha$  System" Borthakur, S., Tripp, T. M., Yun, M. S., **Momjian, E.**, Meiring, J. D., Bowen, D. V., York, D. G., 2010, ApJ, 713, 131.  
<http://arxiv.org/abs/0912.2575>>astro-ph/0912.2575
30. "High Sensitivity Array Observations of the  $z = 1.87$  Sub-Millimeter Galaxy GOODS 850-3" **Momjian, E.**, Wang, W-H., Knudsen, K. K., Carilli, C. L., Cowie, L. L., Barger, A. J., 2010, AJ, 139, 1622.  
<http://arxiv.org/abs/1002.3324>>astro-ph/1002.3324
29. "Detection of the Zeeman Effect in the 36 GHz Class I CH<sub>3</sub>OH Maser Line with the EVLA" Sarma, A. P., & **Momjian, E.**, 2009, ApJL, 705, 176.  
<http://arxiv.org/abs/0910.1081>

28. "Constraints on the presence of water megamaser emission in  $z \sim 2.5$  ultraluminous infrared starburst galaxies" Wagg, J., & **Momjian, E.**, 2009, AJ, 138, 895.  
<http://arxiv.org/abs/0907.1087>
27. "The covering factor of high redshift damped Lyman- $\alpha$  systems" Kanekar, N., Lane, W. M., **Momjian, E.**, Briggs, F. H., Chengalur, J. N., 2009, MNRAS 394, 61.  
<http://arxiv.org/abs/0903.4483>
26. "An EVLA search for water megamaser emission in the submm galaxy SMM J16359+6612 at  $z = 2.5$ " Edmonds, R., Wagg, J., **Momjian, E.**, Carilli, C. L., Wilner, D. J., Humphreys, E. M. L., Menten, K. M., Hughes, D. H., 2009, AJ, 137, 3293.  
<http://arxiv.org/abs/0811.1039>
25. "The Arecibo Legacy Fast ALFA Survey VII: A Neutral Hydrogen Cloud Complex in the Virgo Cluster" Kent, B. R., Spekkens, K., Giovanelli, R., Haynes, M., **Momjian, E.**, Cortes, J. R., Hardy, E., and West, A. A., 2009, ApJ, 691, 1595.  
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113. "The Jansky VLA Frontier Field Public Legacy Survey" **Momjian, E.**, Murphy, E. J., Desai, V., Bhatnagar, S., and the VLA Frontier Field Team, *American Astronomical Society Meeting 227*, 349.20 (2016)
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