

Publications List for Andre P. Mazzoleni

Journal Articles Published (or accepted, in press)

- 1) “Dynamic Modeling and Mobility Analysis of the Transforming Roving-Rolling Explorer (TRREx) as it Traverses Rugged Martian Terrain”, by L. Edwin and A. P. Mazzoleni, International Academy of Astronautics (IAA) Acta Astronautica, Volume 120, pp.103-120 , March-April, 2016.
- 2) “A Survey of shock wave structures of smooth particle granular flows”, by D. A. Padgett and A. P. Mazzoleni, and Stormy D. Faw, Phys Rev E (Stat Nonlin Soft Matter Phys), December, 2015; 92(6), 062209. doi: 10.1103.
- 3) “Nonlinear Dynamic Analysis of a Three-Body Tethered Satellite System with Deployment/Retrieval ”, Wonyoung Jung, Andre P. Mazzoleni and Jintai Chung, Nonlinear Dynamics, July, 2015, Vol.82, pp.1127–1144.
- 4) “Analysis, Fabrication, and Testing of a Liquid Piston Compressor Prototype for an Ocean Compressed Air Energy Storage (OCAES) System”, by Park, Joong-kyoo; Ro, Paul I.; He, Xiao; Mazzoleni, Andre P., Marine Technology Society Journal, Volume 48 Number 6, Nov/Dec 2014.
- 5) “Modeling Tether-Ballast Asteroid Diversion Systems, Including Tether Mass and Elasticity,” by David. A. French and A. P. Mazzoleni, International Academy of Astronautics (IAA) Acta Astronautica, Volume 103, pp.282–306, October-November, 2014.
- 6) “Performance Analysis and Technical Feasibility Assessment of a Transforming Roving-Rolling Explorer (TRREx) Rover for Mars Exploration,” by L. Edwin, J. Denhart, T. Gemmer, S. Ferguson, and A. Mazzoleni, ASME Transactions: Journal of Mechanical Design, Vol.136, Issue 7, May, 2014.
- 7) “Dynamic Analysis of a Tethered Satellite System with a Moving Mass”, Wonyoung Jung, Andre P. Mazzoleni and Jintai Chung, Nonlinear Dynamics: Volume 75, Issue 1 (2014), pp.267-281.
- 8) “Dynamics of a Dissipative, Inelastic Gravitational Billiard,” by A. E. Hartl, B.N. Miller and A. P. Mazzoleni, Physical Review. E, Statistical, Nonlinear, and Soft Matter Physics, 87(3), March, 2013.
- 9) “Conceptual Design of Ocean Compressed Air Energy Storage System”, by Saniel D. Lim, Andre P. Mazzoleni, Joong-kyoo Park, Paul I. Ro and Brendan Quinlan, Marine Technology Society Journal, Volume 47 Number 2, March/April 2013.
- 10) “Aerodynamic effects on the accuracy of an end-over-end kick of an American football”, by W. M. Lee, A. P. Mazzoleni, and M. A. Zikry, Sports Engineering, February, 2013, pp. 1-15.
- 11) “Terrain Modeling and Simulation of a Tumbleweed Rover Traversing Martian Rock Fields”, A. E. Hartl and A. P. Mazzoleni, AIAA Transactions: Journal of Spacecraft and Rockets, March-April, 2012, Vol.49, No.2, pp.401-412.
- 12) “Dynamic Modeling and Simulation of a Real World Billiard,” by A. E. Hartl, B.N. Miller and A. P. Mazzoleni, Physics Letters A, Volume 375, Issue 42, 3 October 2011, Pages 3682–3686.
- 13) Dynamic Modeling of a Wind-Driven Tumbleweed Rover Including Atmospheric Effects”, A. E. Hartl and A. P. Mazzoleni, AIAA Transactions: Journal of Spacecraft and Rockets, May-June, 2010, Vol.47, No.3, pp.493-502.

- 14) "Parametric Study of The Diversion of a Near Earth Object on an Earth Intersecting Trajectory," D. B. French and A. P. Mazzoleni, International Academy of Astronautics (IAA) Transactions: Acta Astronautica, Volume 65, Issues 11-12, December 2009, Pages 1698-1705.
- 15) "Near Earth Object Threat Mitigation Using A Tethered Ballast Mass," D. B. French and A. P. Mazzoleni, ASCE Transactions: Journal of Aerospace Engineering, Volume 22, Issue 4, October 2009, pp. 460-465.
- 16) "Asteroid Diversion Using a Long Tether and Ballast," D. B. French and A. P. Mazzoleni, AIAA Transactions: Journal of Spacecraft and Rockets, May-June, 2009, Vol.46, No.3, pp.645-661.
- 17) "Dynamic Stability of a Semi-Circular Pipe Conveying Harmonically Oscillating Fluid", D. Jung, J. Chung, and A. P. Mazzoleni, Journal of Sound and Vibration, 315 (1), Aug 2008, pp.100-117.
- 18) "Parametric Study of Spherical Rovers Crossing a Valley," A. E. Hartl and A. P. Mazzoleni, AIAA Transactions: Journal of Guidance, Control, and Dynamics, May-June, 2008, Vol. 31, No. 3, pp.775-779.
- 19) "Design, Analysis and Testing of Mars Tumbleweed Rover Concepts," Wilson, A. L., Mazzoleni, A. P. et.al., AIAA Transactions: Journal of Spacecraft and Rockets, March-April, 2008, vol. 45, No. 2, pp. 370-382.
- 20) "Analysis and Design Methods For No-Spin Tethered Satellite Retrieval," Padgett, D. A and Mazzoleni, A. P., AIAA Transactions: Journal of Guidance Control and Dynamics, September-October, 2007, vol. 30, No. 5, pp. 1516-1519.
- 21) "Nullcline Analysis as an Analytical Tethered Satellite Mission Design Tool", by D. A. Padgett and A. P. Mazzoleni, AIAA Transactions: Journal of Guidance, Control and Dynamics, May-June, 2007, Vol. 30, No. 3, pp. 741-752.
- 22) "Parametric Study of Deployment of Tethered Satellite Systems," Mantri, P. Mazzoleni, A. P. and Padgett, D. A., AIAA Transactions: Journal of Spacecraft and Rockets, March-April, 2007, vol. 44, No. 2, pp. 412-423.
- 23) "Nonlinear Spacecraft Dynamics with a Flexible Appendage, Internal Damping and Moving Internal Submasses", by A. J. Miller, G. L. Gray and A. P. Mazzoleni, AIAA Transactions: Journal of Guidance, Control and Dynamics, May-June, 2001, Vol. 24, No. 3, pp.605-615.
- 24) "Analytical Criterion for Chaotic Dynamics in Flexible Satellites with Nonlinear Controller Damping", G. L. Gray, A. P. Mazzoleni and D. R. Campbell III, AIAA Transactions: Journal of Guidance, Control and Dynamics, July-August 1998, Vol. 21, No. 4, pp. 558-565.
- 25) "Double Averaging Approach to the Study of Spinup Dynamics of Flexible Satellites", A. P. Mazzoleni, C. D. Hall and M. C. Stabb, AIAA Transactions: Journal of Guidance, Control and Dynamics, January-February 1996, Vol. 19, No. 1, pp. 54-59.
- 26) "Instability Tests, Liapunov's Direct Method and Exact Stability Boundaries for Flexible Satellites", A. P. Mazzoleni and I. Dobson, AIAA Transactions: Journal of Guidance, Control and Dynamics, May-June 1995, Vol. 18, No. 3, pp. 426-432.
- 27) "Closest Bifurcation Analysis and Robust Stability Design of Flexible Satellites", A. P. Mazzoleni and I. Dobson, AIAA Transactions: Journal of Guidance, Control and Dynamics, March-April 1995, Vol. 18, No. 2, pp. 333-339.
- 28) "Full Field Stability Analysis of Guy-Wired Satellites", A. P. Mazzoleni and A. L. Schlack, Journal of the Astronautical Sciences, January-March 1995, Vol. 43, No. 1, pp. 47-57.

- 29) "The Product of Chord Lengths of a Circle", A. P. Mazzoleni and S. S. P. Shen, Mathematics Magazine, February 1995, Vol. 68, No. 1, pp. 59-60.
- 30) "Comparative Stability Study Illustrating Advantages of Guy-Wire Constraints for Flexible Satellites", A. P. Mazzoleni and A. L. Schlack, AIAA Transactions: Journal of Guidance, Control and Dynamics, September-October 1994, Vol. 17, No. 5, pp. 1139-1141.
- 31) "Gravity Gradient Stability of Satellites with Guy-Wire Constrained Appendages", A. P. Mazzoleni and A. L. Schlack, AIAA Transactions: Journal of Guidance, Control and Dynamics, July-August, 1991, Vol. 14, No. 4, pp. 885-857.
- 32) "Conductivity Values of Tissue Culture Medium from 20° C to 40° C", A. P. Mazzoleni, B.F. Siskin, and R. L. Kahler, Journal of the Bioelectromagnetic Society, 1986, Vol 7, Number 1.

Books

- 1) Coffey, S. L., Mazzoleni, A. P., Luu, K. K., and Glover, R. A., Advances in the Astronautical Sciences, Volume 119: Proceedings of the 14th AAS/AIAA Space Flight Mechanics Meeting held Feb. 8-12, 2004, Maui, Hawai'i, Univelt Inc., San Diego, California, 3318 pages, March, 2005.

Technical Conference Papers

- 1) "Tethered CubeSat Mission Investigating System Dynamics and Interferometric Technique", Thomas Gemmer, Jacob Reedy, Christopher Yoder and Andre Mazzoleni, Proceedings of the Fifth International Conference on Tethers in Space, Ann Arbor, MI, May 24-26, 2016.
- 2) "Study of tether and wing-based balloon guidance system for extra-terrestrial exploration", Christopher Yoder, Rajmohan Wahghela, Jacob Reedy, Sachin Kelkar, Thomas Gemmer and Andre Mazzoleni, Proceedings of the Fifth International Conference on Tethers in Space, Ann Arbor, MI, May 24-26, 2016.
- 3) "Improved Modeling of Electric Sail (E-Sail) Force Generation", T. R. Gemmer and A. P. Mazzoleni, Proceedings of the 66th International Astronautical in Jerusalem, Israel, October 12 – 16, 2015.
- 4) "Solar Wind Ion Focusing Thruster (Swift) Performance Analysis", T. R. Gemmer and A. P. Mazzoleni, Proceedings of the 66th International Astronautical in Jerusalem, Israel, October 12 – 16, 2015.
- 5) "Improved Modeling Techniques for Electric Sail Performance Analysis with Applications to Outer Solar System Missions", T. R. Gemmer and A. P. Mazzoleni, Proceedings of the 65th International Astronautical Congress in Toronto, Canada, September 29 – October 3, 2014.
- 6) "Introduction and Performance Analysis of the Solar Wind Ion Focusing Thruster (SWIFT)", T. R. Gemmer and A. P. Mazzoleni, Proceedings of the 65th International Astronautical Congress in Toronto, Canada, September 29 – October 3, 2014."
- 7) Analysis and proof-of-concept experiment of a near-isothermal compression using liquid piston for Ocean Compressed Air Energy Storage (OCAES) system", J. Park, X. He, P. Ro, A. Mazzoleni, Proceedings of the Marine Energy Technology Symposium, April 15-17, 2014, Seattle, Washington.
- 8) "A Concept Selection Framework For Early Sorting Of Reconfigurable System Designs", by Jason Denhart, Thomas Gemmer, Scott Ferguson and Andre Mazzoleni, Proceedings of the ASME 2013 International Design Engineering Technical Conference & Computers and

Information in Engineering Conference, August 4-7, 2013, Portland, Oregon, DETC2013-13222.

- 9) "Using Multi-Objective Tradespace Exploration to Assess Reconfigurability in Mars Exploration Rovers Jason Denhart, Thomas Gemmer, Scott Ferguson, and Andre Mazzoleni, Proceedings of the 54th AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference, Boston, Massachusetts, 8 - 11 April 2013.
- 10) "Conceptual design of ocean compressed air energy storage (OCAES) system", Saniel Lim, JoongKyo Park, Dr. Andre Mazzoleni, Dr. Paul Ro, Brendan Quinlan, Proceedings of the OCEANS 2012 MTS/IEEE Conference, Virginia Beach, VA, October 14-19, 2012.
- 11) "Analysis and optimization of a quasi-isothermal compression and expansion cycle for Ocean Compressed Air Energy Storage (OCAES)", JoongKyo Park, Dr. Paul Ro, Saniel Lim, Dr. Andre Mazzoleni, Brendan Quinlan, Proceedings of the OCEANS 2012 MTS/IEEE Conference, Virginia Beach, VA, October 14-19, 2012.
- 12) "Assessing Reconfigurable Design for a Chaotic Objective in a Mars Exploration Rover", Jason Denhart, Thomas Gemmer, Lionel Edwin, Scott Ferguson, and Andre Mazzoleni, Proceedings of the 14th AIAA/ISSMO Multidisciplinary Analysis and Optimization Conference, Indianapolis, Indiana, September 17-19, 2012.
- 13) "Biologically Inspired Transforming Roving-Rolling Explorer (TRREx) Rover for Lunar Exploration", L. Edwin and A. P. Mazzoleni, Proceedings of the 63rd International Astronautical Congress in Naples, Italy, October., October 1-5, 2012.
- 14) "Wind-Driven Tumbleweed Rovers for Mars Exploration", A. E. Hartl and A. P. Mazzoleni, Proceedings of the 63rd International Astronautical Congress in Naples, Italy, October., October 1-5, 2012.
- 15) "A Prototype-Based Space Systems Design Course", D. A. Padgett and A. P. Mazzoleni, Proceedings of the Space Education and Outreach Symposium of the 60th International Astronautical Congress, Prague, September 27 – October 1, 2010.
- 16) "Dynamics of Tethered Binary Asteroid Systems", D. B. French and A. P. Mazzoleni, Proceedings of the Astrodynamics Symposium of the 60th International Astronautical Congress, Prague, September 27 – October 1, 2010.
- 17) "Asteroid Diversion Modeled with Massive Elastic Tethers", D.B. French and A.P. Mazzoleni, Proceedings of the 51st AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference, Orlando, Florida, April 12-15, 2010 (AIAA-2010-2668).
- 18) "Assessment of Micrometeoroid Threat to Tethered Satellites in Interplanetary Space", D. B. French and A. P. Mazzoleni, Proceeding of the AIAA SPACE 2009 Conference & Exposition, Pasadena, CA, September 14-17, 2009 (AIAA-2009-6663).
- 19) "Trajectory Diversion of an Earth- Threatening Asteroid via Massive Tether- Ballast System", D. B. French and A. P. Mazzoleni, Proceeding of the AIAA SPACE 2009 Conference & Exposition, Pasadena, CA, September 14-17, 2009 (AIAA-2009-6696).
- 20) Susceptibility of Near Earth Objects to Trajectory Diversion via Tether and Ballast Mass Attachment, D. B. French and A. P. Mazzoleni, Proceedings of the Astrodynamics Symposium of the 58th International Astronautical Congress, Glasgow, Scotland, September 29 – October 3, 2008.
- 21) Parametric Study of the Diversion via a Tether/Ballast System of a Near Earth Object on an Earth Intersecting Trajectory D. B. French and A. P. Mazzoleni, Proceedings of the

Astrodynamics Symposium of the 58th International Astronautical Congress, Glasgow, Scotland, September 29 – October 3, 2008.

- 22) “Modeling and Analysis of the Effect of Disc Degeneration and Spinal Fusion on the Biomechanics of the Lumbar Spine”, C. M. Montgomery and A.P. Mazzoleni, Proceedings of the ASME 2008 International Mechanical Congress and Exposition (IMECE), Boston, MA, October 31 - November 6, 2008.
- 23) “Parametric Studies of Deployment of the Tethered Artificial Gravity System (TAGS)”, A. P. Mazzoleni and D. Grammer, Proceedings of the 43rd AIAA/ASME/SAE/ASEE Joint Propulsion Conference & Exhibit, Cincinnati, OH, July 11 – 13, 2007.
- 24) “Nullcline Analysis as a Tool to Study the Spin- Up of Tethered Satellite Systems”, D. A. Padgett and, A. P. Mazzoleni, Proceedings of the 43rd AIAA/ASME/SAE/ASEE Joint Propulsion Conference & Exhibit, Cincinnati, OH, July 11 – 13, 2007.
- 25) “Comparison of Advanced Propulsion Concepts for Interplanetary Exploration: Solar Sails, Rocks and Electric Propulsion “, B. Duffy and A. Mazzoleni, Proceedings of the 47th AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference, Newport, Rhode Island, May 1-4, 2006 (AIAA-2006-1702).
- 26) “Dynamics Modeling of a Mars Tumbleweed Rover (Invited)”, J. L. Wilson, A. E. Hartl, A. P. Mazzoleni, and F. R. DeJarnette, Proceedings of the 44th AIAA Aerospace Sciences Meeting and Exhibit, Reno, Nevada, Jan. 9-12, 2006, (AIAA-2006-71).
- 27) “Development and Construction of a Prototype Mars Tumbleweed Rover (Invited),” J. S. Claycomb, F. R. DeJarnette, A. P. Mazzoleni, Proceedings of the 44th AIAA Aerospace Sciences Meeting and Exhibit, Reno, Nevada, Jan. 9 – 12, 2006, (AIAA-2006-66).
- 28) “TESSX: A Mission for Space Exploration with Tethers”, M. L. Cosmo, E. C. Lorenzini, A. P. Mazzoleni, et al, Proceedings of the 41st AIAA/ASME/SAE/ASEE Joint Propulsion Conference & Exhibit, Tucson, Arizona, 10 - 13 Jul 2005.
- 29) “Phase-Plane Study of Spin-Up Dynamics of a Tethered Satellite System”, A. P. Mazzoleni and J. H. Hoffman, Proceedings of the Astrodynamics Symposium of the 55th International Astronautical Congress, Vancouver, Canada, October 4-8, 2004 (Paper IAC-04-A.3.02).
- 30) “Effect of Damping on Planar Spin-Up Dynamics of Artificial-Gravity-Generating Tethered Satellite System”, A. P. Mazzoleni and J. H. Hoffman, Proceedings of the 2004 AAS/AIAA Space Flight Mechanics Meeting, Maui, Hawaii, February 8 – 12 (AAS Paper 04-172).
- 31) “End-Body Dynamics of Artificial-Gravity-Generating Tethered Satellite System During Non-Planar Spin-Up with Elastic Effects Included”, A. P. Mazzoleni, Proceedings of the 2003 AAS/AIAA Astrodynamics Conference, Big Sky, Montana, August 3 – August 7 (AAS Paper 03-537).
- 32) “Investigation of a Tethered Satellite System for Generating Artificial Gravity , Proceedings of the AIAA/ASME/SAE/ASEE Joint Propulsion Conference, Huntsville, AL, July 21 – 23, 2003 (Paper No. 5215).
- 33) “Flexibility Effects on Non-Planar Spin-Up Dynamics of Artificial-Gravity-Generating Tethered Satellite System”, A. P. Mazzoleni and J. H. Hoffman, Proceedings of the 2003 AAS/AIAA Space Flight Mechanics Meeting, Ponce, Puerto Rico, February 9 - 13 (AAS Paper 03-219).
- 34) “Flexibility Effects on End-Body Dynamics of Artificial-Gravity-Generating Tethered Satellite Systems”, A. P. Mazzoleni and J. H. Hoffman, presented at the Astrodynamics Symposium of the 53rd International Astronautical Congress, Houston, TX, October 10-19, 2002 (Paper IAC-02-A.5.05).

- 35) "A Small-Satellite Demonstrator for Generating Artificial Gravity in Space via a Tethered System", A. P. Mazzoleni and J. H. Hoffman, Proceedings of the Sixteenth Annual AIAA/Utah State University Conference on Small Satellites, Logan, Utah, August 12 – 15, 2002 (Paper III-2).
- 36) "Overview of the Tag (Tethered Artificial Gravity) Satellite Program", A. P. Mazzoleni and J. H. Hoffman, Proceedings of the 2002 AAS/AIAA Space Flight Mechanics Meeting, San Antonio, TX, January 28-30 (AAS Paper 02-204).
- 37) "Effect of Coriolis Terms in Thrust Equations for Misaligned Strap-On Solid Rocket Motors", A. P. Mazzoleni and W. E. Williamson, Proceedings of the 2002 AAS/AIAA Space Flight Mechanics Meeting, San Antonio, TX, January 28-30 (AAS Paper 02-165).
- 38) "Effects of Tether Elasticity on the Spin-Up Dynamics of a Tethered Satellite System", A. P. Mazzoleni, Proceedings of the Astrodynamics Symposium of the 52nd International Astronautical Congress, Toulouse, France, October 1-5, 2001 (Paper IAF-01-A.4.05).
- 39) "Planar Attitude Dynamics of the End-Bodies of a Tethered Satellite System During Spin-Up", A. P. Mazzoleni, Proceedings of the 2001 AAS/AIAA Astrodynamics Conference, Quebec City, July 30 – August 2 (AAS Paper 01-402).
- 40) "Testing New Methods for Determining Fluid Viscosity via Microgravity-Experiments on-board NASA's KC-135", Fabio O. Goncalves, Andre P. Mazzoleni, et al., presented at the 2001 Annual Conference of the Gulf Southwest Section of the American Society of Engineering Education, College Station, TX, March 28-30.
- 41) "Design and Flight Test of a Prototype Mars Balloon Probe", Mathew A. Baldwin, Andre P. Mazzoleni, et al., presented at the 2001 Annual Conference of the Gulf Southwest Section of the American Society of Engineering Education, College Station, TX, March 28-30.
- 42) "Nonplanar Spin-Up Dynamics of the ASTOR Tethered Satellite System", J. H. Hoffman, A. P. Mazzoleni, Proceedings of the 2001 AAS/AIAA Space Flight Mechanics Meeting, Santa Barbara, CA, February 11-15 (AAS Paper 01-193).
- 43) "Design of a Momentum Exchange Tethered Satellite System", J. H. Hoffman, A. P. Mazzoleni and A. Santangelo, Proceedings of the 2001 Space Technology & Applications International Forum, Albuquerque, New Mexico, February 11 – 14, pp.502 – 507.
- 44) "Dynamics of a Tethered Satellite Technology Demonstrator During Spin-Up", A. P. Mazzoleni, presented at the Materials and Structures Symposium of the 51st International Astronautical Congress, Rio de Janeiro, Brazil, October 2-6, 2000 (Paper IAF-00-I.2.09).
- 45) "Simulation and Design of a Tethered Satellite System", Richard H. Moseley and Andre P. Mazzoleni, presented at the 2000 Annual Conference of the Gulf Southwest Section of the American Society of Engineering Education, Las Cruces, NM, April 5-8.
- 46) "Determination of Coalescence Rate of Liquids in a Microgravity Environment", Roberto Hernandez, Andre P. Mazzoleni, et al., presented at the 2000 Annual Conference of the Gulf Southwest Section of the American Society of Engineering Education, Las Cruces, NM, April 5-8.
- 47) "Nonplanar Deployment Dynamics of the ASTOR Tethered Satellite System", Andre P. Mazzoleni, Proceedings of the 2000 AAS/AIAA Space Flight Mechanics Meeting, January 23-26, Clearwater, FL, January 23 – 26 (AAS Paper 00-187).
- 48) "A Study of the Deployment Dynamics of the ASTOR Tethered Satellite System", A. P. Mazzoleni and R. L. Coles, Proceedings of the 1999 AAS/AIAA Astrodynamics Conference, Girdwood, Alaska, August 16-18 (AAS Paper 99-414).

- 49) "Nonlinear Dynamics of a Viscously Damped Spacecraft with a Flexible Appendage and Time-Dependent Forcing", by A. J. Miller, G. L. Gray and A. P. Mazzoleni, Proceedings of the 1999 AAS/AIAA Astrodynamics Conference, Girdwood, Alaska, August 16-18 (AAS Paper 99-458).
- 50) "Design of Mars Balloon-Based Observation System", John T. Calfee, A. P. Mazzoleni, et al., Proceedings of the 1999 Annual Conference of the Gulf Southwest Section of the American Society of Engineering Education, Dallas, TX, March 7-9.
- 51) "Dynamics of the ASTOR Tethered Satellite System", A. P. Mazzoleni and J. H. Hoffman, Proceedings of the 1999 AAS/AIAA Space Flight Mechanics Conference, Breckenridge, CO, February 7-10, (AAS Paper 99-191).
- 52) "Categorization of Space-based Digital Imagery for Educational Use", R. J. Dailey, T. D. Hardy, and A. P. Mazzoleni, Proceedings of the 1998 Annual Conference of the Gulf Southwest Section of the American Society of Engineering Education, New Orleans, LA, March 25-27, pp. 198-201.
- 53) "Numerical Study of a Double Pendulum on a Rotating Platform", B. M. Beadle and A. P. Mazzoleni, Proceedings of the 1997 Annual Conference of the Gulf Southwest Section of the American Society of Engineering Education, Houston, TX, March 23-25, pp. 638-641.
- 54) "Finite Element Study of Microelectromechanical Systems (MEMS)", T. D. Hardy and A. P. Mazzoleni, The 1997 Annual Conference of the Gulf Southwest Section of the American Society of Engineering Education, March 23-25, pp. 391-394.
- 55) "NASA Spinoffs: More than Just Velcro and Tang", J. D. Carter and A. P. Mazzoleni, The 1997 Annual Conference of the Gulf Southwest Section of the American Society of Engineering Education, March 23-25, pp. 634-637.
- 56) "Experimental Determination of the Coefficient of Friction for Aluminum Under High Altitude Atmospheric Conditions", K. E. Stover and A. P. Mazzoleni, Proceedings of the 1996 Annual Conference of the Gulf Southwest Section of the American Society of Engineering Education, Austin, TX, March 27-29, pp. 904-907.
- 57) "Chaotic Dynamics of a Spacecraft with a Nearly Symmetric Appendage and Energy Dissipation via a Nonlinear Controller", A. P. Mazzoleni, G. L. Gray and D. R. Campbell III, Proceedings of the 1996 AAS/AIAA Space Flight Mechanics Conference, Austin, TX, February 12-15, (AAS Paper 96-219).
- 58) "Modeling and Stability of a Double Pendulum with Cubic Nonlinearities", A. P. Mazzoleni and S. W. Smith, Proceedings of the 1995 AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics and Materials Conference in New Orleans, LA, April 10-12. (AIAA Paper 95-1187).
- 59) "Spinup Dynamics of Dual-Spin Satellites with Flexible Appendages", A. P. Mazzoleni, C. D. Hall and M. C. Stabb, 1994 AAS/AIAA Space Flight Mechanics Meeting, Cocoa Beach, FL, Feb. 14-16. (AAS Paper 94-147).
- 60) "A Method for Determining Exact Stability Boundaries for Flexible Satellites with Arbitrary Position Independent Damping", A. P. Mazzoleni and I. Dobson, 1993 AAS/AIAA Space Flight Mechanics Meeting, Pasadena, CA, Feb. 22-24. (AAS Paper 93-124).
- 61) "Closest Bifurcation Analysis Applied to Design of Flexible Satellites", Andre P. Mazzoleni and Ian Dobson, 1993 AAS/AIAA Space Flight Mechanics Meeting, Pasadena, CA, Feb. 22-24. (AAS Paper 93-123).

- 62) "Analytical Methods for Determining Exact Stability Boundaries for Flexible Structures", A. P. Mazzoleni and I. Dobson, 1993 Structures, Structural Dynamics and Materials Conference, La Jolla, CA, Apr. 19-21. (AIAA Paper 93-124).
- 63) "Comparative Study of Flexible Dual Spin Satellites with and without Guy-Wire Constraints", A. P. Mazzoleni and A. L. Schlack, 1992 AAS/AIAA Space Flight Mechanics Meeting, Colorado Springs, CO, Feb. 24-26. (AAS Paper 92-154).
- 64) "Stability Study of Flexible Dual Spin Satellites with Guy-Wire Constraints", A. P. Mazzoleni and A. L. Schlack, 1991 AAS/AIAA Astrodynamics Conference, Durango, CO, August 19-22. (AAS Paper 91-379).
- 65) "Attitude Stability of Gravity Gradient Stabilized Satellites with Elastically Supported Panels", A. P. Mazzoleni and A. L. Schlack, 1989 AAS/AIAA Astrodynamics Conference in Stowe, VT, Aug. 7-10. (AAS Paper 89-469).
- 66) "Electric Field and Current Density Measurements in a Tissue Culture Chamber", A. P. Mazzoleni and B.F. Siskin, Eighth Annual Meeting of The Bioelectromagnetics Society, Madison, WI, Jun, 1986.