ANTHONY N. PALAZOTTO

Distinguished Professor Aerospace Engineering

Archival Publications

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- 7. Co-author L. L. Durocher, "A Singularity Approach to Circular Plates," presented at the Design Engineering Conference, ASME, April 5-8, 1976, Chicago, Illinois. Paper #76 DE-28, also published in the Transaction ASME, <u>Journal of Engineering for Industry</u>, November, 1976, pp. 1176-1178.
- 8. "Bifurcation and Collapse Analysis of Stringer and Ring-Stringer Stiffened Cylindrical Shells with Cutouts," presented at the Second National Symposium on Computerized Structural Analysis and Design, George Washington University, Washington, DC: March 29-31, 1976. Published in the Int. Journal of Computers and Structures, Vol. 7, pp. 47-58, 1977.
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- 273 . Sabat, J., and Palazotto, A., "Structural Performance of Composite Material for a Slotted Waveguide Antenna", presented at the 51st AIAA SDM Conference, Orlando, Florida, April, 12-15, 2010, paper # 2010-2945.
- Abu Al-Rub, R., Palazotto, A., "Mesoscale Energy Dissipation Prediction in Thermal Barrier Ceramic Coatings under Nonlinear Vibration", presented at the 51st AIAA SDM Conference, Orlando, Florida, April, 12-15, 2010, paper # 2010-3125.
- Easterday, O., Palazotto, A., Branam, R., and Baker., "An Unique Experimental Device for Evaluating Damping Properties of Thermal Barrier Coatings at Elevated Temperatures, presented at the 51st AIAA SDM Conference, Orlando, Florida, April, 12-15, 2010, paper # 2010-3126.
- Abu Al Rub and Palazotto, A., "Nonlocal Gradient- Dependent Constitutive Model for Simulating Localized Damage and Fracture", Presented at the Society of Engineering Science Symposium, October, 3-6, 2010, at Iowa State University, Iowa
- Tubbs, T., Palazotto, A., and Willis, M., "Bio-Inspired Research for Manufacturing Purposes", Presented at the 25th Technical Conference of the American Society of Composites", Paper number 1214, Dayton, Oh. September 20-22,2010.
- Deleon, N., O'Hara, R., and Palazotto, A., Manufacturing of Engineering Biologically Inspired Flapping Wings", Presented at the 25th Technical Conference of the American Society of Composites", Paper number 1215, Dayton, Oh., September 20-22,2010
- Tubbs, T., Palazotto, A., and Willis, M., "Flight Muscle Movement to Advance Bio-inspired Micro Air Vehicles", Presented at the 6th Annual Engineering Science Symposium, October, 18, 2010, at WSU, Ohio.
- Deleon, N., O'Hara, R., Palazotto, A., "Evaluation of Manufacturing Techniques of Flapping MAV Wings", ", Presented at the 6th Annual Engineering Science Symposium, October, 18, 2010, at WSU, Ohio.
- Easterday, O., Palazotto, A., Branam, R., and Baker, W., "Characterization of Bulk Mechanical Complex Modulus of a Thermal Barrier Coating at Various Temperatures Using a Free-Free Beam Apparatus", Presented at the 6th Annual Engineering Science Symposium, October, 18, 2010, at WSU, Ohio

- 282 . Palazotto, A., "Research on the Effects of Severe Wear", to AFOSR, Washington, D.C., February, 8, 2011
- Palazotto, A., and Meador, S., "Numerical Study of High Velocity Wear, presented at the AIAA Dayton-Cincinnati Aerospace Science Symposium, Dayton, Ohio, March, 1,2011
- 284 .O'Hara, R.,and Palazotto, A.," Optimal Determination of the Elastic Modulus of Vein in a MAV", presented at the AIAA Dayton-Cincinnati Aerospace Science Symposium, Dayton, Ohio, March, 1,2011.
- Paek, G., Baker, W., and Palazotto, A., "Partitioning of Heat Generation by Friction Between Two Surfaces", presented at the AIAA Dayton-Cincinnati Aerospace Science Symposium, Dayton, Ohio, March, 1,2011
- DeLeon, N., O'Hara, R., and Palazotto, A., "Manufacturing and Evaluation of a Biologically Inspired Engineering MAV Wing Compared to the Manducca Sexta Wing Under Simulation of Flapping Conditions", presented at the AIAA Dayton-Cincinnati Aerospace Science Symposium, Dayton, Ohio, March, 1, 2011.
- Tubbs,T.,Palazotto, A., and Willis, M., "Simulating Flapping Motion of the Manduca Sexta Using Electromyography", presented at the AIAA Dayton-Cincinnati Aerospace Science Symposium, Dayton, Ohio, March, 1,2011
- Easterday, O., Palazotto, A., Branam, R., and, Baker, W., "Experimental Characterization of Damping Properties of Coatings at Elevated Temperatures" presented at the 52nd AIAA SDM Conference ,Denver, CO., April, 4-7, 2011, paper # AIAA 2011-1943
- 289 . O'Hara, R.,and Palazotto,A.,"Structural Identification and Simulation of the Manduca Sexta", presented at the 52nd AIAA SDM Conference ,Denver,CO.,April, 4-7, 2011, paper # AIAA 2011-2066..
- Palazotto, A., and Meador, S., "Consideration of Wear at High Velocities Using a Hydrocode", presented at the 52nd AIAA SDM Conference, Denver, CO., April, 4-7, 2011, paper # AIAA 2011-2120.
- Abu Al-Rub, R.,and Palazotto, A., "Nonlocal Constitutive Model for Simulating Localized Damage and Fracture Viscoplastic Solids Under Energy Impact", presented at the 52nd AIAA SDM Conference ,Denver,CO.,April, 4-7, 2011, paper # AIAA 2011-2175
- 292 .\ Szelag, T. and Palazotto, A.," Effects of Inaccuracies in Small Nonhomogeneous Fiber Specimens", presented at the 7th Annual Dayton Engineering Science Symposium, ASME, Wright State University, Dayton, Ohio, October, 26,2011

- 293 Hollenbeck, A., and Palazotto, A., Evaluation of the Hawkmoth Thorax for Flapping Wing Micro Air Vehicles" presented at the 7th Annual Dayton Engineering Science Symposium, ASME, Wright State University, Dayton, Ohio, October, 26,2011
- Murray, J., and Palazotto, A., "The Use of Photogrammetry to Evaluate Dynamics Characteristics of a Manduca Sexta Wing" presented at the 7th Annual Dayton Engineering Science Symposium, ASME, Wright State University, Dayton, Ohio, October, 26,2011
- 295 .Almodovar, G., and Palazotto, A., "Characterization of Composite Materials for Application in Antenna Waveguide Design In Remotely Piloted Aircraft Structures", presented at the 7th Annual Dayton Engineering Science Symposium, ASME, Wright State University, Dayton, Ohio, October, 26,2011
- Palazotto, A., and Meador, S., "Consideration of Wear at High Velocities Using a Hydrocode", presented at the 52nd AIAA SDM Conference, Denver, CO., April, 4-7, 2011, paper # AIAA 2011-2120.
- Palazotto, A., and McCormick, H., "Report on Phase II Progress in High Velocity Wear", January 8, 2012
- 298 .Buentello, R., Palazotto, A., and Baker, W., "The Evaluation of Material Failure Due to High Speed Sliding", presented at the 37th Annual Dayton- Cincinnati Aerospace Science Symposium, Dayton, Ohio, March, 6, 2012
- Dauby, B., and Palazotto, A., "The Evaluation of Muscle Reaction of a Manduca Sexta Due toe Electronic Impulse", presented at the 37th Annual Dayton-Cincinnati Aerospace Science Symposium, Dayton, Ohio, March, 6, 2012
- 300 .Cox, J., and Palazotto, A., "Mistuning Considerations In a Rotating Disk" ", presented at the 37th Annual Dayton- Cincinnati Aerospace Science Symposium, Dayton, Ohio, March, 6, 2012.
- 301 Szelag, T., and Palazotto, A., "Composite Material Inaccuracies Considering a Composite MAV Wing" ", presented at the 37th Annual Dayton- Cincinnati Aerospace Science Symposium, Dayton, Ohio, March, 6, 2012
- 302 .Lee, K., and Palazotto, A., "A Study of the Thermal Environment Developed by a Traveling Sleigh at High Velocities", presented at the 37th Annual Dayton-Cincinnati Aerospace Science Symposium, Dayton, Ohio, March, 6, 2012.
- Almodovar, G., and Palazotto, A., Characterization of Composite Materials in the X- Band Radio Frequency Range for Application in Antenna and Waveguide Design"", presented at the 37th Annual Dayton- Cincinnati Aerospace Science Symposium, Dayton, Ohio, March, 6, 2012.

- Metlen, T., and Palazotto, A., "Design Challenges of Lighter Than Air Vehicles"
 ", presented at the 37th Annual Dayton- Cincinnati Aerospace Science Symposium, Dayton, Ohio, March, 6, 2012.
- Hollenbeck, A., and Palazotto, A., "Mechanics of the Hawkmoth Thorax Material Properties and Power Calculations for Micro Air Vehicle Research.", presented at the 37th Annual Dayton- Cincinnati Aerospace Science Symposium, Dayton, Ohio, March, 6, 2012.
- DeMarci, L., Palazotto, A., Hollenbeck, A., and Cavallaro, R., "Exploring Structural Investigation of a Hawkmoth Inspired MAV Thorax", AIAA, paper, presented at the AIAA SDM Conference, Honolulu, Hawaii, April, 8,2012
- McCormick, H., and Palazotto, A., "Report on the Progress of Phase II High Velocity Wear", Presented at Eglin, AFB, April, 16, 2012
- Palazotto, A., and Huber, D., "Evaluation of Wear Under High Velocities", Presented at the ASCE Engineering Mechanics Institute Conference, 2012, Notre Dame University, June, 18-20, paper No. 410.
- Hollenbeck, A., and Palazotto, A., "Evaluation of the Thorax of a Manduca Sexta for Flapping Wing Micro Air Vehicle Applications, Presented at the ASCE Engineering Mechanics Institute Conference, 2012, Notre Dame University, June, 18-20, paper No. 556
- Hernandez, B., and Palazotto, A., "Three Dimensional Finite Element Modeling of High Speed Sliding Wear" AIAA 2013-1505, presented at the AIAA SDM conference, April 7-11, 2013, Boston, Mass. (presented by Carl Parsons Ctr)
- Metlen, T., and Palazotto, A., "Design of a Structure That Achieves Positive Buoyancy in Air Using a Vacuum", AIAA 2013-1881, presented at the AIAA SDM conference, April 7-11, 2013, Boston, Mass. (presented by Carl Parsons Ctr)
- Parson, C., Chrissis, J., O'Hara, R., and Palazotto, A., Direct Search Optimization of a Flapping Micro Air Vehicle Wing", AIAA 2013-1679,, presented at the AIAA SDM conference, April 7-11, 2013, Boston, Mass
- Cranston, B., and Palazotto, A., "Evaluation of the Thorax of the Manduca Sexta for Flapping Wing Micro Air Vehicle Application", Presented at the WSU, DESS 2012 conference, October, 24, 2012
- Wuertemberger, L.,and Palazotto, A., "Predicting Wear of a high Speed Rocket Sled", Presented at the WSU, DESS 2012 conference, October, 24, 2012

- Hernandez, B., and Palazotto, A., "Three Dimensional Finite Element Modeling of High Speed Sliding Wear", Presented at the WSU, DESS 2012 conference, October, 24, 2012
- Metlen, T., and Palazotto, A., "Vacuum Lighter Than Air Vehicle", Presented at the WSU, DESS 2012 conference, October, 24, 2012
- Cox, G., and Palazotto, A., "Validation Processes for Mistuned Rotors", Presented at the WSU, DESS 2012 conference, October, 24, 2012
- Dauby, B., and Palazotto, A., "Finite Element Analysis of Nanoindintation of Manduca Sexta Flight Muscles", Presented at the WSU, DESS 2012 conference, October, 24, 2012
- Deleon, Armando, and Palazotto, A., "Column Buckling Prediction Using Finite Elements", Presented at the WSU, DESS 2012 conference, October, 24, 2012
- Metlen, T.,and Palazotto, A.,"Design of a Lighter Than Air Vehicle that Achieves Positive buoyancy Using a Vacuum", Presented at the AIAA 38th Dayton-Cincinnati Aerospace Science Symposium, March, 6, 2013, Dayton, Ohio. (Student received outstanding paper award).
- Deleon, A., and Palazotto, A., "Shock Wave Propagation in a Bar", Presented at the AIAA 38th Dayton-Cincinnati Aerospace Science Symposium, March, 6, 2013, Dayton, Ohio
- Wuertemberger, L., and Palazotto, A.,"Predictiong Wear of the Holloman Test Track Sleigh", Presented at the AIAA 38th Dayton-Cincinnati Aerospace Science Symposium, March, 6, 2013, Dayton, Ohio
- Le, K., Palazotto, A., 'and Baker, W., "The Evaluation of Melt Wear Due to High Speed of a Traveling Sled", Presented at the AIAA 38th Dayton-Cincinnati Aerospace Science Symposium, March, 6, 2013, Dayton, Ohio
- Hernandez, B., and Palazotto, A., "Three Dimensional Evaluation of High Velocity Asperity Impact", Presented at the AIAA 38th Dayton-Cincinnati Aerospace Science Symposium, March, 6, 2013, Dayton, Ohio
- Engelbreton, C., and Palazotto, A.," Using Hysteretic Energy to Evaluate Damping Properties of Hard Coatings on Titanium", Presented at the AIAA 38th Dayton-Cincinnati Aerospace Science Symposium, March, 6, 2013, Dayton, Ohio
- 326 Cranston **, Brian, and Palazotto, A., Evaluation of the Thorax of the Manduca Sexta for Flapping Wing Air Vehicle", (Award Winner), presented at the WSU, ASME, DESS, 2013, Conference, October, 29, 2013

- Alban**, C., Palazotto, A., Baker, W., and Rutlecge, J., "Thermal and Melt Wear Characterization of Materials in Sliding Contact at High Speeds", presented at the WSU, ASME, DESS, 2013, Conference, October, 29, 2013
- Cavallaro**, G., Palazotto, A., Baker, W., "Comparison of Medium and High Speed Wear Rates Using Abaqus", presented at the WSU, ASME, DESS, 2013, Conference, October, 29, 2013
- Deleon*#, A.,and,Palazotto, A., "Finite Element Modeling of Stress Wave Propagation", presented at the WSU, ASME, DESS, 2013, Conference, October, 29, 2013
- Adomo-Rodriquez***, R. and Palazotto, A., "The Analysis of a Lighter Than Air Vehicle Within a Vacuum", presented at the WSU, ASME, DESS, 2013, Conference, October, 29, 2013
- Cox**, G., Palazotto, A., Brown, J., and George, T., "Experimental Uncertainty Qualification and its Cumulative Effects on the Identification of Geometric Mistuning In Cyclic Structures", presented at the WSU, ASME, DESS, 2013, Conference, October, 29, 2013
- Wuertemberger*#, L., and Palazotto, A., "Predicting Wear of a High Speed Rocket Sled Using a HydoCode (CTH)", presented at the WSU, ASME, DESS, 2013, Conference, October, 29, 2013
- Alban**, C., Palazotto, A., Baker, W., and Rutledge, J., "High Speed Effects on Thermal Wear", presented at the AIAA 39th Dayton-Cincinnati, Aerospace Science Symposium, March, 5, 2014. Dayton, Ohio.
- Cavallaro**, G., Palazotto, A., and Baker, W., "The Use of Abaqus in Evaluating Medium Velocity Wear", presented at the AIAA 39th Dayton-Cincinnati, Aerospace Science Symposium, March, 5, 2014. Dayton, Ohio.
- Cranston**, B., and Palazotto, A., "Evaluation of a Flapping MAV Wing", presented at the AIAA 39th Dayton-Cincinnati, Aerospace Science Symposium, March, 5, 2014. Dayton, Ohio.
- Deleon*#, A., and Palazotto, A., "Wave Propagation in a 3D Beam", presented at the AIAA 39th Dayton-Cincinnati, Aerospace Science Symposium, March,5, 2014. Dayton, Ohio.
- Adomo**, Rodriquez, R., and Palazotto, A., "Analysis of a LTA Vehicle", presented at the AIAA 39th Dayton-Cincinnati, Aerospace Science Symposium, March, 5, 2014. Dayton, Ohio

- 338 Cox**, G., Palazotto, A., Brown, J., George, T., "Experimental Evaluation of Mistuning", presented at the AIAA 39th Dayton-Cincinnati, Aerospace Science Symposium, March, 5, 2014. Dayton, Ohio.
- Wuertemberger**, L., and Palazotto, A., "The Use of a HydoCode in Evaluating Wear at High Velocities" presented at the AIAA 39th Dayton-Cincinnati, Aerospace Science Symposium, March, 5, 2014. Dayton, Ohio.
- Cranston **, Brian, and Palazotto, A., "Evaluating Unique Lighter Than Air Vehicles With an Internal Vacuum", presented at the WSU, ASME, DESS, 2014, Conference, October, 28, 2014
- Just*, L., Palazotto, A., and Deluca, A., "Dynamic Response Analysis of an Icosahedron Frame Lighter Than Air Vehicle", presented at the WSU, ASME, DESS, 2014, Conference, October, 28, 2014.
- Adomo -Rodriquez, R., and Palazotto,*,A., "UAV- LTAV One Foot In Diameter", presented at the WSU, ASME, DESS, 2014, Conference, October, 28, 2014
- Deleon*#, A.,and,Palazotto, A., "Stress Waves in a Beam Under Dynamic Loading", presented at the WSU, ASME, DESS, 2014, Conference, October, 28, 2014.
- Hodkin*, R., Palazotto, A., and Deluca, A., "Response Characteristics of a Simplified Piezoelectric Shaker Table Mechanical Model Using Classical Vibration Theory", presented at the WSU, ASME, DESS, 2014, Conference, October, 28, 2014.
- Cox*#, G., Palazotto, A., Brown, J., and George, T., "Recreating a Forced Boundary Condition Using Physical Supports", presented at the WSU, ASME, DESS, 2014, Conference, October, 28, 2014.
- Wuertemberger*#, L., and Palazotto, A., "A Study of the Johnson-Cook Strength and Damage Model", presented at the WSU, ASME, DESS, 2014, Conference, October, 28, 2014.
- 347 Alghofaily, M., and Palazotto, A," Analysis of 3 D Frame in the Form of a sphere", presented at the AIAA 40th Dayton-Cincinnati, Aerospace Science Symposium, March,4, 2015. Dayton, Ohio.
- Cranston**, B., and Palazotto, A., "Evaluation of Unique Lighter Than Air Vehicles", presented at the AIAA 40th Dayton-Cincinnati, Aerospace Science Symposium, March, 4, 2015. Dayton, Ohio.

- Deleon*#, A., and Palazotto, A., "Elastic Wave Action Under Dynamic Loading", presented at the AIAA 40th Dayton-Cincinnati, Aerospace Science Symposium, March,4, 2015. Dayton, Ohio.
- Hodkin*, R., and Palazotto, A., "Model Characteristics of a Piezoelectric Shaker Table", presented at the AIAA 40th Dayton-Cincinnati, Aerospace Science Symposium, March,4, 2015. Dayton, Ohio.
- Just*, L., and Palazotto, A., 'Nonlinear Dynamic Response Analysis of an Icosahedron Frame", presented at the AIAA 40th Dayton-Cincinnati, Aerospace Science Symposium, March,4, 2015. Dayton, Ohio.
- Wuertemberger*#, L., and Palazotto, A., "Evaluation of the Viscoplastic Properties of Treated 4130 Steel of Flow and Failure Based on the Johnson-Cook Damage and Flow Model" presented at the AIAA 40th Dayton-Cincinnati, Aerospace Science Symposium, March, 4, 2015. Dayton, Ohio.
- Adorno- Rodriquez, R., and Palazotto,*, A., "Nonlinear Structural Analysis of an Icosahedron Under an Internal Vacuum", presented at the SCITECH 2015 conference, January, 5-9, Kissimmee, Fl.
- Just, L., and Palazotto, A., Evaluation of an Icosahedron Eigenvalue", presented at the 57th AIAA/ASCE/AHS/ASC SciTech 2016, San Diego, Ca., January, 4-8, 2016,paper # AIAA 2016-0202.
- Cranston, B., and Palazotto, A., Design of Unique Structures Under an Internal Vacuum", presented at the 57th AIAA/ASCE/AHS/ASC SciTech 2016, San Diego, Ca., January, 4-8, 2016,paper # AIAA 2016-0487.
- Knapp, K., Palazotto, A., and Scott-Emuakpor, O., "Goodman Data Improved", presented at the 57th AIAA/ASCE/AHS/ASC SciTech 2016, San Diego, Ca., January, 4-8, 2016, paper # AIAA 2016-0925.
- Graves, W., Liu, D., and Palazotto, A., "Topology Evaluation of a Warhead", presented at the 57th AIAA/ASCE/AHS/ASC SciTech 2016, San Diego, Ca., January, 4-8, 2016, paper # AIAA 2016-1509.
- Dempsey, A., Liu, D., Palazotto, A., and Abraham, E., "Dynamic Properties of Added Manufactured 15-5 PH Stainless Steel and 3D Micromechanics", presented at the 57th AIAA/ASCE/AHS/ASC SciTech 2016, San Diego, Ca., January, 4-8, 2016, paper # AIAA 2016-1510.
- Hanks, E., Liu, D., and Palazotto, A., "Surface Roughness Effects on Ultra Testing of Additive Manufactured ",presented at the 57th AIAA/ASCE/AHS/ASC SciTech 2016, San Diego, Ca., January, 4-8, 2016,paper # AIAA 2016-1512.

- Palazotto, A., and AlGhofaily, M. "Analysis of a 3D Frame of an Icosahedron", presented at the 11th Annual Dayton Engineering Sciences Symposium, WSU, November, 2, 2015.
- 361 Cranston*#, B., and Palazotto, A., "Design and Structural Analysis of Unique Structures", presented at the 11th Annual Dayton Engineering Sciences Symposium, WSU, Ohio, November, 2, 2015.
- Knapp, K., Palazotto, A., Scott-Emualpor, O., and George, T., "Improved Pre-Strain Method for Generating Goodman Data With Vibration Based Fatigue Testing", presented at the 11th Annual Dayton Engineering Sciences Symposium, WSU, Ohio, November, 2, 2015.
- Deleon, A., and Palazotto, A., "Description of the Penalty Method Utilized by Abaqus When Contact Occurs", presented at the 11th Annual Dayton Engineering Sciences Symposium, WSU, Ohio, November, 2, 2015.
- Dempsey, A., Liu, D., Palazotto, A., and Abrahams, R., "Properties of 15-5 Additive manufactured Stainless Steel", presented at the 11th Annual Dayton Engineering Sciences Symposium, WSU, Ohio, and November, 2, 2015.
- Graves, W., Liu, D., and Palazotto, A., "Topology Optimization of a Penetrating Warhead", presented at the 11th Annual Dayton Engineering Sciences Symposium, WSU, Ohio, November, 2, 2015.
- Wuertemberger, L., and Palazotto, A., "Evaluation of Flow and Failure Properties of Treated 4130 Steel", presented at the 11th Annual Dayton Engineering Sciences Symposium, WSU, Ohio, November, 2, 2015.
- Hanks, E., Liu, D., and Palazotto, A., "Effects of Surface Roughness of Electron Beam Melting ti-6Al-4v on Ultrasonic Testing", presented at the 11th Annual Dayton Engineering Sciences Symposium, WSU, Ohio, November, 2, 2015.
- Wuertemberger, L., and Palazotto, A., "Microstructural Investigation of Dynamically Failed Heat Treated 4130 Steel", Presented at the 41st Annual Dayton-Cincinnati Aerospace Science Symposium, Sinclair CC, Dayton, Ohio, March, 2, 2016.
- Mirmasoudi, S., and Palazotto, A., "High Temperature Transient Creep Analysis of Metals", Presented at the 41st Annual Dayton-Cincinnati Aerospace Science Symposium, Sinclair CC, Dayton, Ohio, March, 2, 2016.
- Hanks, E., Liu, D., and Palazotto, A., "Effect of Surface Roughness of Electron Beam Melting Ti-6Al-4v on Ultrasonic Testing", Presented at the 41st Annual

- Dayton-Cincinnati Aerospace Science Symposium, Sinclair CC, Dayton, Ohio, March, 2, 2016.
- 371 Graves, W., Liu, D., and Palazotto, A., "A Warhead Design Using Optimization", Presented at the 41st Annual Dayton-Cincinnati Aerospace Science Symposium, Sinclair CC, Dayton, Ohio, March, 2, 2016.
- Dempsey, A., Liu, D., and Palazotto, A. "Effects of the Additive Manufacturing Methods on the Dynamic Properties of Stainless Steel", Presented at the 41st Annual Dayton-Cincinnati Aerospace Science Symposium, Sinclair CC, Dayton, Ohio, March, 2, 2016.