

RECENT CONFERENCE PROCEEDINGS – Professor George G. Adams

- P.J. Ryan, G.G. Adams, N.E. McGruer, and S. Muftu, “Bending of Bridge Structures Due to Residual Stresses at an Interface,” *2005 MRS Fall Meeting*, Abstract Y3.5.
- P.J. Ryan, G.G. Adams, N.E. McGruer, and S. Muftu, “An AFM-Based Scanning Method for Mechanical Testing of Nanoscale Cantilevers,” *2005 MRS Fall Meeting*, Abstract NN9.7.
- L. Chen, N.E. McGruer, G.G. Adams, R. Coutu, K. Leedy, “An SPM-Based System for Contact Reliability Characterization,” *Proceedings of the 52nd National Symposium of the AVS*, Session MN-MoM6, 2005.
- G.G. Adams, “Asperity-Based Models of Micro-Scale Friction,” *Proceedings of WTC2005, World Tribology Congress III*, paper WTC2005-64386 on CD-ROM. **Keynote address.**
- A.O. Sergici, G.G. Adams, and S. Muftu, “Adhesion in the Contact of a Spherical Indenter With a Layered Medium,” *Proceedings of WTC2005, World Tribology Congress III*, paper WTC2005-63382 on CD-ROM.
- L. Chen, N.E. McGruer, and G.G. Adams, “Contact Evolution in a Micromechanical Switch,” *Proceedings of WTC2005, World Tribology Congress III*, paper WTC2005-63970 on CD-ROM.
- J. Johnson, G.G. Adams, and N.E. McGruer, “Determination of Intermodulation Distortion in a MEMS Microswitch,” *International Microwave Symposium, 2005 IEEE MTT-S*, 4 pages on CD-ROM.
- S. Majumder, N.E. McGruer, and G.G. Adams, “Adhesion and Contact Resistance in an Electrostatic MEMS Microswitch,” *18th IEEE International Conference on Micro Electro Mechanical Systems, MEMS 2005*, pp. 215-218.
- O.T. Sari, G.G. Adams, and S. Müftü, “The Sliding and Rolling of a Cylinder at the Nano-Scale,” *Proceedings of TRIB2004, 2004 ASME/STLE International Joint Tribology Conference*, CD ROM, 6 pages, Paper TRIB2004-64347.
- L. Chen, N.E. McGruer, and G.G. Adams, “AFM-Based Testing and Measurements of Contact and Stiction in a Micromechanical Switch,” *Proceedings of TRIB2004, 2004 ASME/STLE International Joint Tribology Conference*, CD ROM, 4 pages, Paper TRIB2004-64348.
- G.G. Adams and S. Müftü, “Height-Dependent Asperity Radii of Curvatures in a Contact and Friction Model,” *Proceedings of TRIB2004, 2004 ASME/STLE International Joint Tribology Conference*, CD ROM, 6 pages, Paper TRIB2004-64349.
- G.G. Adams and S. Müftü, “Asymmetric Asperity Height Distributions in a Scale Dependent Model of Contact and Friction,” *Proceedings of the 27th Annual Meeting of The Adhesion Society, Inc.*, pp. 410-412.
- G.G. Adams and S. Müftü, “A Scale-Dependent Model for Contact and Friction,” presented at the American Chemical Society Meeting in April 2004.
- G.G. Adams, S. Müftü, and N. Mohd Azhar, “Scale-Dependence of the Coefficient of Friction,” *Proceedings 26th Annual Meeting of the Adhesion Society*, 2003, pp. 528-530.

- O.T. Sari, G.G. Adams, and S. Müftü, “Sliding and Rolling in Particle Adhesion on a Substrate,” Proceedings 26th Annual Meeting of the Adhesion Society, 2003, pp. 531-533.
- G.G. Adams and S. Müftü, “Asymmetric Asperity Height Distributions in a Scale-Dependent Model for Contact and Friction,” 2003 STLE/ASME International Joint Tribology Conference, 2003, paper # 2003-Trib-258, 6 pages on CD-ROM.
- S. Majumder, N. McGruer, and G.G. Adams, “Contact Resistance and Adhesion in a MEMS Microswitch,” 2003 STLE/ASME International Joint Tribology Conference, paper # 2003-Trib-270, 6 pages on CD-ROM.
- X. Yan, N.E. McGruer, G.G. Adams, and S. Majumder, “Finite Element Analysis of the Thermal Characteristics of MEMS Switches,” Transducers '03: The 12th International Conference on Solid State Sensors, Actuators and Microsystems, 2003, pp. 412-415.
- G.G. Adams, S. Müftü, and N. Mohd Azhar, “A Nano-Scale Multi-Asperity Model for Contact and Friction,” Proceedings of 2002 ASME/STLE Joint International Tribology Conference, Symposium on Frontiers of Magnetic Hard Disk Drives and Technology, ASME2002-TRIB-258.
- X. Yan, N.E. McGruer, G.G. Adams, and S. Majumder, “Thermal Characteristics of Microswitch Contacts,” Proceedings of the National Association of Relay Manufacturer’s (NARM) 49th Annual International Relay Conference, April 23-25, 2001. Received one of three best paper awards at this meeting.
- G.G. Adams and M. Nosonovsky, “Elastic Waves Induced by the Frictional Sliding of Two Elastic Half-Spaces,” Proceedings of the 27th Leeds Lyon Symposium on Tribology, September 2000.
- G.G. Adams, “The Sliding of an Elastic Half-Space Against a Rigid Surface With Friction Reduction Due to Incident Dilatational Waves,” Proceedings of DETC'99, 1999 ASME Design Engineering Technical Conferences, proceedings on CD ROM: DETC99VIB-8138.
- P.M. Nieva, P.M. Zavracky, G.G. Adams, H. Tada, A.R. Abramson, I.N. Miaoulis, and P.Y. Wong, “Temperature Measurement During Rapid Thermal Annealing Using MEMS,” Proceedings of the 5th ASME/JSME Joint Thermal Engineering Conference, 1999, proceedings on CD ROM: AJTE99/6196.
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- T.Q. Truong, T.G. Barnes, X. Lu, G.G. Adams, and N.E. McGruer, “Design, Analysis, Fabrication, And Testing of a MEMS Contact/Bending Sensor With Improved Dynamic Range,” Micro-Electro-Mechanical Systems, 1999 ASME International Congress and Exposition, MEMS-Vol. 1, 1999, pp. 201-208.
- T.G. Barnes, T.Q. Truong, X. Lu, N.E. McGruer, and G.G. Adams, “Design, Analysis, Fabrication, And Testing of a MEMS Flow Sensor,” Micro-Electro-Mechanical Systems, 1999 ASME International Congress and Exposition, MEMS-Vol. 1, 1999, pp. 355-361.

- G.G. Adams, "Self-Excited Oscillations and Interface Stick-Slip in the Sliding of Two Elastic Half-Spaces With Constant Friction," 13th United States National Congress of Applied Mechanics, Book of Abstracts, 1998, p. WB5.
- S. Majumder, N.E. McGruer, P.M. Zavracky, R.H. Morrison, G.G. Adams, and J. Krim, "Contact Resistance Modeling and Measurements of an Electrostatically Actuated Micromechanical Switch," Micro-Electromechanical Systems, 1998 ASME International Mechanical Engineering Congress and Exposition, DSC-Vol. 66, 1998, pp. 341-346.
- S. Majumder, N.E. McGruer, P.M. Zavracky, G.G. Adams, R.H. Morrison, and J. Krim, "Contact Resistance Measurements and Modeling of an Electrostatically Actuated Micromechanical Switch," Tribology Issues and Opportunities in MEMS, Kluwer Academic Publishers, pp. 471-480, 1998.
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- N.E. McGruer, P.M. Zavracky, S. Majumder, R.H. Morrison, and G.G. Adams, "Electrostatically Actuated Microswitches; Scaling Properties," Technical Digest, Solid-State Sensor and Actuator Workshop, Hilton Head Island, pp. 132-135, June 8-11, 1998.
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- G.F. Kent and G.G. Adams, "Analytical and Experimental Modeling of the Feeding of a Flexible Medium into a Molding Machine," Pamphlet Paper at the 1996 ASME International Congress and Exposition.