

**Jeffrey L. Streator**  
**CV**  
**December 31, 2020**

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**Jeffrey L. Streator**  
**Associate Professor**  
**G. W. Woodruff School Mechanical Engineering**

**I. EARNED DEGREES**

<u>Degree</u>	<u>Year</u>	<u>University</u>	<u>Field</u>	<u>Advisor</u>
Ph.D.	1990	U.C. Berkeley	Mechanical Engineering	D. B. Bogy
M.S.	1986	U.C. Berkeley	Mechanical Engineering	D. B. Bogy
A.B.	1984	Harvard University	Engineering Sciences	

**II. EMPLOYMENT HISTORY**

<u>Title</u>	<u>Organization</u>	<u>Years</u>
Associate Professor	School of Mechanical Engineering	1996-Present
Assistant Professor	School of Mechanical Engineering, Georgia Institute of Technology	1990 - 1996
Research Assistant	Department of Mechanical Engineering, 1985-1990 University of California, Berkeley (Advisor: D. B. Bogy)	
Aerospace Engineer	Space Sciences Division, NASA Ames Research Center	Summer 1985
Aerospace Engineer	Space Sciences Division, NASA Ames Research Center	Summer 1984

**III. HONORS AND AWARDS**

**A. International or National Awards**

Fellow of the American Society of Mechanical Engineers, 2010  
 Fellow of the Society of Tribologists and Lubrications Engineers, 2010  
 Young Investigator Award, National Science Foundation, 1992

**B. Institute or School Awards**

Outstanding Faculty Mentor, Women in Engineering, College of Engineering, 2007  
 Ruth and Joel Spira Award for Teaching Excellence, G. W. Woodruff School of Mechanical Engineering, Georgia Institute of Technology, 1998  
 Outstanding Professor, Order of Omega, Georgia Institute of Technology, 1998  
 Georgia Tech Foundation Teaching Fellow Award, 1993

#### IV. RESEARCH, SCHOLARSHIP AND CREATIVE ACTIVITIES

##### A. PUBLISHED BOOKS, BOOK CHAPTERS AND EDITED VOLUMES

1. Colin Curtis, Jeffrey L. Streater and Jacquelyn Krim (2020). Friction: Friend and Foe. Surface and Interface Science, Volume 10: Applications of Surface Science II. Dr. Klaus Wadelt (Ed.), ISBN 978-3-527-41391-2.
2. Jeffrey L. Streater (2015). Solid-Liquid-Solid Interfaces, Surface Energy, Dr. Mahmood Aliofkhaezai (Ed.), ISBN: 978-953-51-2216-6, InTech, DOI: 10.5772/61572. <http://www.intechopen.com/books/surface-energy/solid-liquid-solid-interfaces>.

##### B. REFEREED PUBLICATIONS AND SUBMITTED ARTICLES

###### B1. Published and Accepted Journal Articles

1. Streater, J. L., 2019, "Nanoscale Friction: Phonon Contributions for Single and Multiple Contacts," *Frontiers*, v 5, n23. <https://www.frontiersin.org/article/10.3389/fmech.2019.00023>.
2. Müser, M.H., Dapp, W.B., Bugnicourt, R., Streater J., et al., 2017, "Meeting the Contact Mechanics Challenge," *Tribology Letters*, 65: 118.
3. Rostami, A. and Streater J. L., 2017, "A Model of Capillary Flow Between Contacting Rough Surfaces," *Journal of Tribology*, v 139, n 3, p. 031401.
4. Marvi, H., Cook, J. P., Streater, J. L., and Hu, D., 2016, "Snakes Move their Scales to Increase Friction," *Biotribology*, v 5, p 52-60.
5. Rostami, A., and Streater, J. L., 2015, "A Deterministic Approach to Studying Liquid-Mediated Adhesion between Rough Surfaces," *Tribology Letters*, v 58, n 1, p 1-13.
6. Rostami, A., and Streater, J. L., 2015, "Study of Liquid-Mediated Adhesion between 3D rough Surfaces: A Spectral Approach," *Tribology International*, v 84, p 36-47.
7. Avlonitis, M., Kalaitzidou, K., and Streater, J. 2014, "Investigation of Friction Statics and Real Contact Area by Means of a Modified OFC Model," *Tribology International*, v 69, p 168-175.
8. Bansal, D. G., and Streater, J. L., 2012, "On Estimations of Maximum and Average Interfacial Temperature Rise in Sliding Contacts," *Wear*, vol. 278-279, p 18-27.
9. Green, C. K., Streater, J. L., Haynes, C., and Lara-Curzio, E., 2011, "A Computational Model for Solid Oxide Fuel Cell Compressive Seals," *Journal of Fuel Cell Science and Technology*, vol 8, n4, p 041003: 1-9.
10. Bansal, D. G., and Streater, J. L., 2011, "Effect of Operating Conditions on Tribological Response of Al-Al Sliding Electrical Interface," *Tribology Letters*, v 43, n 1, p 43-54.
11. Bansal, D. G., and Streater, J. L., 2011, "Voltage Saturation in Electrical Contacts via Viscoplastic Creep," *Acta Materialia*, vol 59, p 726-737.
12. Bansal, D. G. and Streater, J. L., 2009, "Design Curves for Temperature Rise in Sliding Elliptical Contacts," *Tribology International*, v. 42, n 11-12, p. 1638-1650.
13. Streater, J. L., 2009, "A Model of Liquid-Mediated Adhesion with a 2D Rough Surface," *Tribology International*, v. 42, n 10, p. 1439-1447.
14. Streater, J. L., and Jackson, R. L., 2009, "A Model for the Liquid-Mediated Collapse of 2-D Rough Surfaces," *Wear*, v. 267, n 9-10, p. 1436-1445.

15. Bansal, D. G., and Streater, J. L., "Behavior of Copper-Aluminum Tribological Pair Under High Current Densities," IEEE Transactions on Magnetics, v 145, n 1, January 2009.
16. Bansal, D., and Streater, J. L., 2009, "A Method for Obtaining the Temperature Distribution at the Interface of Sliding Bodies," Wear, v 266, p 721-732.
17. Zheng, J., and Streater, J. L., "A Generalized Formulation for the Contact between Elastic Spheres: Applicability to both Wet and Dry Conditions," Journal of Tribology, v 129, p. 274, 2007.
18. Jackson, R. and Streater, J. L., "A Multi-scale Model for Contact between Rough Surfaces," Wear, v 261, n 11-12, p 1337-1347, 2006.
19. Streater, J. L., "An Approximate Analytical Model for the Separation of a Sphere from a Flat in the Presence of a Liquid," Journal of Tribology, v 128, n 2, April, p 431-435, 2006.
20. Zheng, J., and Streater, J. L., "A Liquid Bridge between Two Elastic Half-spaces: a Theoretical Study of Interface Instability," Tribology Letters, Vol. 16, n. 1, p. 1, 2004.
21. Zheng, J., and Streater, J. L., "A Micro-scale Liquid Bridge between Two Elastic Spheres: Deformation and Stability," Tribology Letters, vol. 15, no 4, p. 453, 2003.
22. Streater, J. L., "Dynamic Contact of a Rigid Sphere with an Elastic Half-Space: A Numerical Simulation," Journal of Tribology, vol. 125, p. 25, 2003.
23. Korach, C., Streater, J. and Danyluk, S., "Measurement of Perfluoropolyther Lubricant Thickness on a Magnetic Disk Surface," Applied Physics Letters, vol. 79, p. 698, 2001.
24. Yano, D., Korach, C., Streater, J., and Danyluk, S., "Non Vibrating Contact Potential Difference Probe Measurement of a Nanometer-Scale Lubricant on a Hard Disk," ASME Journal of Tribology, vol. 121, no. 4, pp. 980-983, October 1999.
25. Streater, J. L., "Experimental and Theoretical Analysis of Magnetic Head-Disk Interface Equilibrium in the 'Rupture' Regime of the Starved-Liquid Bearing," ASME Journal of Tribology, vol. 119, no. 3, pp. 515-519, July 1997.
26. Streater, J. L., "Head-Disk Interface Performance with a Starved-Liquid Bearing-- Analytical Solution to Reynolds Equation in the Near-Contact Regime," ASME Journal of Tribology, vol. 118, no. 3, pp. 492-497, July 1996.
27. Streater, J. L. and Johnson, J. K., "Velocity-Dependent Adhesion with Lubricants on Thin-Film Disks," STLE Tribology Transactions, vl. 37, n. 4, pp. 864-870, October 1994.
28. Streater, J. L., Gerhardstein, J. P., and McCollum, C. B., "The Low-Pressure Rheology of Ultra-Thin Lubricant Films and its Influence on Sliding Contact," ASME Journal of Tribology, vol. 115, no. 1, pp. 119-126, January 1994.
29. Streater, J. L., "Modeling Stiction in Liquid-Lubricated Slider-Disk Contacts," Advances in Information Storage Systems, ASME Press, vol. 5, pp. 397-408, 1993.
30. Streater, J. L. and Bogy, D. B. "Accounting for Transducer Dynamics in the Measurement of Friction," ASME Journal of Tribology, vol. 114, no. 1, pp. 86-94, January 1992.
31. Streater, J. L., "Considerations of a Simplified Model of Transducer Dynamics for Measuring Friction," ASME Journal of Tribology, vol. 114, no. 2, pp. 360-369, April 1992.
32. Salant, R. F., Bair, S., Green, I., Streater, J. L., and Winer, W. O., "Tribology Research at Georgia Tech," Tribology International, vol. 25, no. 5, pp. 351-354, 1992.
33. Streater, J. L., Bhushan, B., and Bogy, D. B., "Lubricant Performance in Magnetic Thin Film Disks with Carbon Overcoat. Part I: Dynamic and Static Friction," ASME Journal of Tribology, vol. 113, no. 1, pp. 22-31, January 1991.
34. Streater, J. L., Bhushan, B., and Bogy, D. B., "Lubricant Performance in Magnetic Thin Film Disks with Carbon Overcoat. Part II: Durability," ASME Journal of Tribology, vol. 113, no. 1, pp. 32-37, January 1991.

35. Streator, J., Etsion, I., and Bogy, D. B., "The Effect of Lubrication on the Static and Low-Speed Dynamic Friction in Thin Film Disks," Tribology and Mechanics of Magnetic Storage Systems, STLE SP-25, vol. V, pp. 24-29, October 1988.

**B2. Conference Presentation with Proceedings (Refereed)**

1. Streator, J. L., "A Numerical Simulation of Interfacial Slip and its Role in Friction," Proceedings of IMECE 2012: ASME International Mechanical Engineering Congress and Exposition, Houston, TX, November 9-15, 2012.
2. Streator, J. L., "Investigations of a Spectral-Based Surface Contact Model via Pointwise Computations," Proceedings of IMECE 2009: ASME International Mechanical Engineering Congress and Exposition, Lake Buena Vista, FL, November 13-19, 2009.
3. Bansal, D. G., and Streator, J. L., "Voltage Saturation in Electrical Contacts," Proceedings of IJTC2009: ASME/STLE International Joint Tribology Conference, October 19-21, 2009.
4. Watkins, B. G., and Streator, J. L., "Simulation of Thermal Effects in Stationary and Sliding Electrical Contacts," Proceedings of IJTC2008: STLE/ASME International Joint Tribology Conference, Miami, FL, October 22-24, 2008.
5. Streator, J. L., "Numerical Simulation of Scale Effects in Contacting Rough Surfaces," Proceedings of IMECE2008, 2008 ASME International Mechanical Engineering Congress and Exposition, November 2-6, 2008, Boston, Massachusetts, USA.
6. Green, C. K., Streator J. L., and Haynes, C., and Lara-Curzio, E. "A Computational Leakage Model for Solid Oxide Fuel Cells," Proceedings of the 5<sup>th</sup> International Conference on Fuel Cell Science, Engineering and Technology: Fuel Cell 2007, New York, NY, June 17-20, 2007.
7. Bansal, D. G., and Streator J. L., "Influence of Surface Roughness on Friction and Contact Resistance in Sliding Electrical Contacts," Proceedings of IJTC2007: ASME/STLE International Joint Tribology Conference, San Diego, CA, October 22-24, 2007.
8. Green, C. K., and Streator J. L., "Leakage Studies with Seals for Solid-Oxide Fuel Cells," Proceedings of IJTC2007: ASME/STLE International Joint Tribology Conference, San Diego, CA, October 22-24, 2007.
9. Wilson, W. E., Angadi, S., Jackson, R. L., and Streator J., "Surface Separation and Contact Resistance considering Elasto-plastic Multi-Scale Rough Surface Contact," Proceedings of IJTC2007: ASME/STLE International Joint Tribology Conference, San Diego, CA, October 22-24, 2007.
10. Kovalchenko, A., Bansal, D., Streator, J., and Danyluk, S., "Effect of Polarity on Tribological Behavior," Proceedings of IJTC2007: ASME/STLE International Joint Tribology Conference, San Diego, CA, October 22-24, 2007.
11. Green, C. K., Streator J. L., and Haynes, C., "Modeling Leakage with Mica-Based Compressive Seals for Solid Oxide Fuel Cells," Proceedings of IMECE2006: 2006 ASME International Mechanical Engineering Congress and Exposition, Chicago, IL, November 5-10, 2006.
12. Zheng, J., and Streator J. L., "Approach and Detachment of two Elastic Spheres in Both Wet and Dry Conditions," Proceedings of IJTC2006: STLE/ASME International Joint Tribology Conference, San Antonio, TX, October 22-25, 2006.
13. Bansal, D. and Streator J., "Transitions in Contact Resistance Between a Pin and a Flat During Sliding at High Current Densities," Proceedings of IJTC2006: STLE/ASME International Joint Tribology Conference, San Antonio, TX, October 22-25, 2006.

15. Streator, J. L., "Analytical Instability Model for the Separation of a Sphere from a Flat in the Presence of a Liquid Film," Proceedings of TRIB04: 2004 STLE/ASME International Joint Tribology Conference, Long Beach, CA, October, 2004.
16. Streator, J. L. "A Model of Mixed Lubrication with Capillary Effects," Proceedings of the 28th Leeds-Lyon Symposium on Tribology—Boundary and Mixed Lubrication: Science and Applications, p. 121, 2002.
17. Zheng, J. and Streator, J. L. "Limiting Friction in a Slider-Disk Interface with Nanometer-scale Lubricant Films," Fundamentals of and Bridging the Gap Between Macro- and Micro/Nanoscale Tribology, NATO Science Series, II—Mathematics, Physics and Chemistry, B. Bhushan (ed.), Kluwer Academic Publisher, 2001.
18. Streator, J. L., Huang, J. and Zheng, J., "High Shear Rate Response of Thin Lubricant Films in a Slider-Disk Interface," Proceedings of the 26th Leeds-Lyon Symposium on Tribology-- Thinning Films and Tribological Interfaces, D. Dowson, M. Priest, C.M. Taylor, P. Ehret, G. Galmaz, A. A. Lubrecht, Y. Berthier, L. Flamand, and J.-M. Georges eds., Elsevier, New York, 2000.
19. Streator, J. L., "Micro-scale Simulation of Adhesive Effects During Normal Impact," Proceedings of Design Engineering and Technical Conferences '97, DETC97/VIB-3914, ASME, New York, 1997.
20. Streator, J. L., "A Molecularly-Based Model of Sliding Friction," Proceedings of the 20th Leeds-Lyon Symposium on Tribology--Dissipative Processes in Tribology, D. Dowson, C. M. Taylor, T. H. C. Childs, and M. Godet, and G. Dalmaz eds., Elsevier, New York, pp. 173-183, 1994.
21. Streator, J. L. and Gerhardtstein, J. P., "Lubrication Regimes for Nanometer-Scale Lubricant Films with Capillary Effects," Proceedings of the 19th Leeds-Lyon Symposium on Tribology-- Thin Films in Tribology, D. Dowson, C. M. Taylor, M. Godet, and D. Berthe eds., Elsevier, New York, , pp. 461-470, 1993.

**B3. Other Refereed Material**

No data.

**B4. Submitted Journal Articles**

No data.

**C. OTHER PUBLICATIONS AND CREATIVE PRODUCTS**

**C1. Non-refereed Conference Presentations with Proceedings**

1. **Rostami, A.**, and Streator, J. L., 2014, "A Model for Capillary Flow between Rough Surfaces," Society of Tribologists and Lubrication Engineers Annual Meeting and Exhibition 2014, v 1, p 44-47.
2. **Bansal, D. G.**, and Streator, J. L., "Electrical Contact Resistance of Metallic Rough Surfaces," Proceedings of the World Tribology Congress 2009, Kyoto, Japan, September 6-11.
3. Streator, J. L., "Dynamic Pull-off Forces between a Rigid Sphere and an Elastic Half-Space," Proceedings of WCCM VI in conjunction with APCOM '04, Beijing, China, September 2004.
4. Streator, J. L., and Kudish, I. I., "A Computational Study of Nano-Scale Contact and Friction," Proceedings of TRIB03: 2003 STLE/ASME International Joint Tribology Conference, Ponte Vedra Beach, Florida, October, 2003.

5. **Zheng, J.**, and Streator, J. L., "Influence of Capillarity and Elasticity on Micro-contacts," Proceedings of the 2<sup>nd</sup> Asia International Conference on Tribology, Jeju Island, Korea, p. 65, 2002.

**C2. Software**

No data.

**C3. Patents**

**C3.a. Patents Awarded**

No data.

**C3.b. Provisional Patents, Applications, and Invention Disclosures**

1. Streator, J. L., "Starved Liquid-Lubricated Bearing for the Magnetic Head-Disk Interface," Invention Disclosure, Office of Technology and Licensing, Georgia Institute of Technology, March, 1995

**C4. Other Creative Products**

1. Streator, J. L., Carpick, R. W., Keer, L., Kim, K.-S., Wang, Q., "Tribology and Contact Mechanics," Report on NSF Workshop on Future Directions in Solid Mechanics, F. Moon (ed.), March, 2001.
2. Streator, J. L., "Role of Lubricant Rheology in the Performance of the Magnetic Head/Disk Interface with a Liquid Bearing," Tribology of Contact/Near Contact Recording for Ultra High Density Magnetic Storage, TRIB-Vol. 6, ASME Press, 1996 (Invited Paper).
3. Streator, J. L., "Analytical and Numerical Results for the Liquid-Lubricated Magnetic Head-disk Interface Using Measured Rheological Data," Journal of The Korean Society of Tribologists and Engineers, Special Issue, Vol. 11, no. 5, pp. 93-98, December 1995.
4. Masy, A., Streator, J., Wercinski, P., and Swenson, B., "The Flight and Impact Dispersion of the Comet Nucleus Penetrator -- A Six-Degree-of-Freedom Simulation," AIAA/AAS Astrodynamics Conference Technical Papers, AIAA-86, pp. 351-358, 1986.

**D. PRESENTATIONS**

**D1. Keynote Addresses and Plenary Lectures**

1. "Energy Dissipation in Nanometer-scale Contact and Sliding," BALTRIB 2019 International Conference, Kaunas, Lithuania, November 14-16, 2019.

**D2. Invited Conference and Workshop Presentations**

1. "Contact, Adhesion and Friction: some thoughts . . .," Contact Mechanics Workshop, Rice University, May 3-4, 2017.

**D3. Conference and Workshop Presentations**

1. "Energy Flow in Nanoscale Sliding," 2019 Tribology Frontiers Conference, Chicago, IL, October 20-22, 2019.
2. "Interfacial Slip during Nanoscale Sliding," 2017 STLE Annual Meeting & Exhibition, Atlanta, GA, May 21-25, 2017.
3. "Measurements of Liquid-Mediated Adhesion between Contacting Rough Surfaces," STLE Tribology Frontiers Conference 2016, Chicago, Illinois, November 13-15, 2016. [with Amir Rostami (presenter)].
4. "Experimental Study of the Liquid-Mediated Adhesion between Contacting Rough Surfaces," 2016 STLE Annual Meeting & Exhibition, Las Vegas, NV, May 17-21, 2016. [with Amir Rostami (presenter)].
5. "Experimental Study of Capillary-Driven Flow between Contacting Rough Surfaces," 2015 STLE Tribology Frontiers Conference, Denver, CO, October 2015 [with Amir Rostami (presenter)].
6. "Modeling of the Capillary-Driven Flow between Rough Surfaces, STLE Annual Meeting, May 2015 [with Amir Rostami (presenter)].
7. "Snake Scales: Flexible Cleats for Climbing Deformable Substrates," 2014 STLE Tribology Frontiers Conference, Chicago, IL, October 2014 [with Hamid Marvi and David Hu].
8. "Deterministic Analysis of the Liquid Film Adhesion between Rough Surfaces", 2014 STLE Tribology Frontiers Conference, Chicago, IL, October 2014 [with Amir Rostami].
9. "Relating Local Surface Interactions to Macroscopic Sliding," IMECE 2013, November, 2013, San Diego, CA.
10. "The Role of Micro-slip in Static and Kinetic Friction," World Tribology Congress, Turin, Italy, September 2013.
11. "A Numerical Simulation of Liquid-mediated Adhesion in Contacting Solids," STLE Annual Meeting, Detroit, MI, May, 2013.
12. "Snakes on a Plane," APS March Meeting, Boston, MA, February-March, 2012, [with Hamid Marvi (presenter) and David Hu
13. "Snakeskin Tribology," MRS Fall Meeting, Symposium M: Bioinspired Directional Surfaces—From Nature to Engineering Textured Surfaces, Boston, MA, November 2012 [with Hamid Marvi (presenter) and David Hu].
14. "On the Role of Local Slip in Contact and Sliding," STLE/ASME International Joint Tribology Conference, Denver, CO, October, 2012.
15. "Hydrodynamic Lubrication with Soft Metals," ASME/STLE International Joint Tribology Conference, Los Angeles, CA, October, 2011.
16. "Friction Anisotropy via Contact Asymmetry," ASME/STLE International Joint Tribology Conference, Los Angeles, CA, October, 2011.
17. "The Role of Roughness Spectral Content on Leakage with Static Compressive Seals," 2011 STLE Annual Meeting, Atlanta, GA, May 2011.
18. "A Leakage Model for Static Compressive Seals," 2010 STLE Annual Meeting, Las Vegas, NV, May 2010.
19. "Electrical Contact Resistance of Nominally Flat Surfaces: Modeling and Experiment," 2009 STLE Annual Meeting, Lake Buena Vista, FL, May 2009.
20. "Relating Surface Spectra to Leakage Rates: A Computational Study," 2008 STLE Annual Meeting, Cleveland, OH, May 2008.



21. "Measurements of Pull-Off Force Between a Sphere and a Flat in the Presence of Liquid and Comparison to Theory," 2006 STLE Annual Meeting, Calgary, AB, Canada, 2006.
22. "How to Say it Precisely and Concisely," NSBE Region III Fall Regional Conference, Atlanta, GA, November 2005.
23. "Liquid-Mediated Adhesion and Pull-Off between Two Elastic Spheres," 1<sup>st</sup> International Conference on Advanced Tribology, Singapore, December 2004.
24. "Associative Memory Approach for Determining Optical Parameters via Ellipsometry-- Application to Magnetic Hard Disks," World Tribology Congress, London, England, September 1997.
25. "Effect of Inlet Wetting in the Starved Liquid-Lubrication of Flexibly Supported Slider Bearings at Low-Loads--A Numerical Simulation," STLE Annual Meeting, May 1997.
26. "Head-Disk Interaction, with a Liquid Interface," U.S.-Nordic Workshop on Performance Prediction Tribological Machine Elements, Trondheim, Norway, June 1996.
27. "Combining Short- and Long-Bearing Approximations to Analyze the Starved Liquid-Lubricated Magnetic Head-Disk Interface," Tribology Seminar Series, G.W. Woodruff School of Mechanical Engineering, Georgia Institute of Technology, May 1996.
28. "Near-Contact Recording with Liquid-Film Bearing," Industrial Visit, MAXTOR Corp., Longmont, CO, February 1995.
29. "Tribological Challenges to the Achievement of Near-Contact Recording," Program Review Meeting, Center for Engineering Tribology, Georgia Institute of Technology, March 1995.
30. "Numerical Analysis of the Fully-Flooded Head-Disk Interface," STLE Annual Meeting, Chicago, IL, May 1995.
31. "Concept of a Starved Liquid-Lubricated Bearing for Near-Contact Recording," Tribology Seminar Series, G. W. Woodruff School of Mechanical Engineering, Georgia Institute of Technology, Atlanta, GA, May 1995.
32. "On the Relation Between Rheology and Friction," STLE Annual Meeting, Calgary, Alberta, Canada, May 1993.
33. "The Relation Between Rheology and Friction?," Tribology Seminar Series, G. W. Woodruff School of Mechanical Engineering, Georgia Institute of Technology, April 1993.
34. "On a Source of Friction-Induced Vibration," ASME Winter Annual Meeting, Anaheim, CA, November 1992.
35. "Is the Reynolds Equation Valid at  $2 \times 10^{-8}$  m?," Tribology Seminar Series, G. W. Woodruff School of Mechanical Engineering, Georgia Institute of Technology, October 1992 [with **J. P. Gerhardstein**].
36. "Shearing Friction on Magnetic Recording Disks," Materials Research Society Spring Meeting, Anaheim, CA, April 1991.

**D3. Invited Seminar Presentations**

No data.

**D4. Other Presentations**

No data.

**E. GRANTS AND CONTRACTS**

**E1. As Principal Investigator**

1. Project Title: "Liquid-Mediated Adhesion: Forces, Flows and Pressure Limits"  
Agency: National Science Foundation  
Total Dollar Amount: \$280,937  
Collaborators: none  
Period of Award: August, 2012 to July, 2015 (NCE to July 2016)
2. Project Title: "A Design Methodology for Mica based Compressive Seals"  
Agency: Taiho Kogyo Tribology Research Foundation  
Total Dollar Amount: \$15,000  
Collaborators: none  
Period of Award: January, 2006 to September, 2007
3. Project Title: "Normal and Shear Stresses, in Dynamic, Submicron, Liquid Bridges"  
Agency: National Science Foundation  
Total Dollar Amount: \$250,001  
Collaborators: none  
Period of Award: May, 2002 to April, 2005
4. Project Title: Young Investigator Award  
Agency: National Science Foundation  
Total Dollar Amount: \$244,433 (includes \$119,433 of matching funds)  
Collaborators: none  
Period of Award: May, 2002 to April, 2005
5. Project Title: Young Faculty Development Grant  
Agency: General Motors Corporation  
Total Dollar Amount: \$7,334  
Collaborators: none  
Period of Award: June, 1997 to June, 1998
6. Project Title: Research Experiences for Undergraduates  
Agency: National Science Foundation  
Total Dollar Amount: \$10,000  
Collaborators: none  
Period of Award: May, 1995 to January, 1998
7. Project Title: Young Faculty Development Grant  
Agency: General Motors Corporation  
Total Dollar Amount: \$18,500  
Collaborators: none  
Period of Award: June, 1994 to June, 1999
8. Project Title: "Graduate Traineeships in Tribology"  
Agency: National Science Foundation  
Total Dollar Amount: \$333,000

Collaborators: W. Wepfer, R. Salant, I. Green  
Period of Award: September, 1993 to April, 1998  
Share for J. Streator: \$119,037

9. Project Title: Equipment Donation  
Agency: IBM  
Total Dollar Amount: \$39,658  
Collaborators: none  
Period of Award: November, 1992
10. Project Title: "The Role of Lubricant Viscosity in the Frictional Behavior of the Magnetic Slider/Disk Interface"  
Agency: National Science Foundation  
Total Dollar Amount: \$59,897  
Collaborators: none  
Period of Award: July, 1991 to December, 1993

## **E2. As Co-Principal Investigator**

1. Project Title: "Instrumentation for the Testing of Friction & Wear under Very High Electromagnetic Stress" (in conjunction with MURI)  
Agency: Office of Naval Research, DOD  
Total Dollar Amount: \$398,098  
Collaborators: many  
Period of Award: FY2005  
Share for J. Streator: n/a
2. Project Title: "Friction and Wear Under Very High Electromagnetic Stresses"  
Agency: Office of Naval Research, DOD,  
Total Dollar Amount: unknown  
Collaborators: Many  
Period of Award: May 2004 to April 2009  
Share for J. Streator: \$659,953
3. Project Title: "SGER: Novel Disk Architecture for Extremely High Magnetic Storage Densities"  
Agency: National Science Foundation  
Total Dollar Amount: \$91,718  
Collaborators: Y.-W. Chung, Northwestern University, Q. Jane Wang, Northwestern University  
Period of Award: March, 2002 to April, 2003  
Share for J. Streator: \$53,155
4. Project Title: Supplement to "SGER: Novel Disk Architecture for Extremely High Magnetic Storage Densities"  
Agency: National Science Foundation  
Total Dollar Amount: \$7,425

Collaborators: Y.-W. Chung, Q. Jane Wang, Northwestern University  
Period of Award: May, 2003 to April, 2004  
Share for J. Streater: ~3,000

5. Project Title: "Work Function Measurements Applied to Moving Surfaces"  
Agency: Office of Naval Research  
Total Dollar Amount: \$194,894  
Collaborators: Steven Danyluk  
Period of Award: August, 1998 to September, 2000  
Share for J. Streater: ~\$30,000
6. Project Title: "Work Function Measurements as Condition-Based Monitoring of Rotating Shafts"  
Agency: Office of Naval Research  
Total Dollar Amount: \$235,000  
Collaborators: Steven Danyluk  
Period of Award: August 1995 to June, 1998  
Share for J. Streater: ~\$45,000

### **E3. As Senior Personnel or Contributor**

1. Project Title: "AGEP: FACES: Facilitating Academic Careers in Engineering and Science" Agency: National Science Foundation  
Total Dollar Amount: \$5,000,000  
Collaborators: G. Wayne Clough (PI), Gary May (Project Coordinator), many other contributors  
Period of Award: October, 2005 to September, 2009  
Share for J. Streater: n/a (student fellowship program)
2. Project Title: "AGEP: FACES: Facilitating Academic Careers in Engineering and Science" Agency: National Science Foundation  
Total Dollar Amount: \$2,500,000  
Collaborators: G. Wayne Clough (PI), Gary May (Project Coordinator), many other contributors  
Period of Award: October, 1998 to October, 2004  
Share for J. Streater: n/a (student fellowship program)
3. Project Title: "Training Grant: Undergraduate Student Researchers Alliance Project",  
Agency: NASA/Spelman College  
Total Dollar Amount: unknown  
Collaborators: Lytia Howard, Spelman College (PI), many other contributors  
Period of Award: October, 1992 to August, 1995  
Share for J. Streater: \$30,391

### **E4. Pending Proposals**

1. Project Title: "Capturing the Physics of Friction: Nano to Macro"  
Agency: National Science Foundation  
Total Dollar Amount: \$330,514  
Period of Award: August 2020 to July 2023

**F. OTHER SCHOLARLY AND CREATIVE ACCOMPLISHMENTS**

No data.

**G. SOCIETAL AND POLICY IMPACTS**

No data.

**H. OTHER PROFESSIONAL ACTIVITIES**

***Consulting***

- NuHeel, 2012
- CryoLife, Inc., 2011
- Robins, Kaplan, Miller & Ciresi, L.L.P., 2001-2002
- CELTECH, Inc., 1999
- Panduit, Inc., 1998
- LATSU, Inc., 1995

V. EDUCATION

A. Courses Taught (last 6 years)

Semester, Year	Course Number	Course Title	Number of Students
Fall 2020	ME3345D	Heat Transfer	47
	ME4193A	Tribological Design	6
Spring 2020	ME3345D	Heat Transfer	55
	ME2110I	Creative Decision and Design (studio	21
Fall 2019	ME6242A	Mechanics of Contact (co-taught with R. Neu)	13
	ME3322F	Thermodynamics	47
Summer 2019	ME2016A	Computing Techniques	27
	ME2016QUP	Computing Techniques	14
	ME2110C	Creative Decisions and Design (studio)	23
	ME2110D	Creative Decisions and Design (studio)	23
Spring 2019	ME3322E	Thermodynamics	32
	ME2110J	Creative Decisions and Design (studio)	20
Fall, 2018	ME4193B	Tribological Design	12
	ME2110D	Creative Decisions and Design (studio)	19
Spring, 2018	ME2110D	Creative Decisions and Design (studio)	20
	ME2106E	Computing Techniques	66
	ME2016C	Computing Techniques	68
Fall, 2017	ME4193B	Tribological Design	7
	ME6242A	Mechanics of Contact (co-taught with R. Neu)	12
Summer, 2017	ME3340B	Fluid Mechanics	46
	ME3340QUP	Fluid Mechanics	16
Spring, 2017	ME2110I	Creative Decisions and Design (Studio)	20
	ME2110O	Creative Decisions and Design (Studio)	20
	ME3180A	Machine Design	46
Fall, 2016	ME4193B	Tribological Design	
	ME2110I	Creative Decisions and Design (Studio)	20
Summer, 2016	ME3340B	Fluid Mechanics	82
	ME3180B	Machine Design	64
Spring, 2016	ME3180A	Machine Design	64

	ME2110I	Creative Decisions and Design (Studio)	19
Fall, 2015	ME4193A	Tribological Design	14
	ME6242A	Mechanics of Contact	6
Summer, 2015	ME2110D	Creative Decisions and Design (Studio)	19
	ME3340B	Fluid Mechanics	59
Spring, 2015	ME2110A	Creative Decisions and Design (Studio)	20
	ME3180A	Machine Design	64

## B. INDIVIDUAL STUDENT GUIDANCE

### B1. Ph.D. Students

#### B1.a. Graduated Ph.D. Students

1. Amir Rostami  
 Graduated: Spring 2017  
 Thesis title: "Liquid Mediated Adhesion between Contacting Rough Surfaces"  
 Current Position: Research and Development Engineer at Chevron Richmond, CA
2. Dinesh G. Bansal  
 Graduated: Fall 2009  
 Thesis title: "Tribological Investigation of Sliding Electrical Contacts"  
 Current Position: Tribology Specialist, Infineum Chemical
3. Christopher K. Green (co-advised with Comas Haynes)  
 Graduated: Fall 2007  
 Thesis title: "Development of Leakage Model for Solid Oxide Fuel Cell Compressive Seals"  
 Current Position: Program Engineer, Identification Beam Systems, Buford, GA
4. Jie Zheng  
 Graduated: Fall 2004  
 Thesis title: "Effects of Capillarity on the Mechanical Stability of Small-scale Interfaces"

#### B1.b. In Process Ph.D. Students

No data.

### B2. M.S. Students

#### B1.a. Graduated M.S. Students

1. Brian Horton  
 Graduated: Summer 2014  
 Thesis title: "Magnetic Head Flyability on Patterned Media"

2. Peter Chen  
 Graduated: Fall 1995  
 Thesis title: "Numerical Analysis of the Fully-Flooded Magnetic Head-Disk Interface Including Rheological Effects"  
 Current Position: Tribology Specialist, Infineum Chemical
  
3. Clarence B. McCollum  
 Graduated: Fall 1994  
 Thesis title: "Numerical Analysis of the Magnetic Slider/Disk Interface Using Optimization Techniques" Compressive Seals"
  
4. Joseph P. Gerhardstein  
 Graduated: Summer 1993  
 Thesis title: "Friction and Lubrication for Nanometer-scale Lubricant Films"
  
5. Janice K. Johnson  
 Graduated: Spring 1992  
 Thesis title "Adhesive and Viscous Effects of Several Lubricants at the Slider/Disk Interface"
  
6. Lewis E. Moore  
 Graduated: Spring 1992  
 M. S. Special Problem: "Characterization of Surface Topography for Magnetic Slider and Disk Surfaces,"

**B1.b. In Process M.S. Students**

No data.

**B3. Undergraduate Students**

	<b>Name</b>	<b>Years</b>
1	Graham Brantley	2019
2	Xiafeng Zhao	2019
3	Jeffrey Butler	2019
4	Jael Bond	2017
5	Audry Browder	2015
6	Kavita Singh (2013-2015)	2013-2015
7	Ana Whittmore	2012, 2013
8	Min Han	2011, 2012
9	Jieun Yoo	2010, 2011
10	James Baunchalk	2010
11	Victoria Bennett	2006, 2007
12	Khamisi Walters	2005-2007
13	Seun Oyenran	2006
14	Eric Waltham	2005
15	David Fernandez	2005



16	Jonathan Pendley	2004
17	Justin Cotton	2004
18	Ikram Rahim	2003
19	Kenji Davis	2003
20	Shantisa Norman	2002
21	Patricia Gregory	2002
22	Jarrett White	2001
23	Tamela McClam	2001
24	Christopher K. Green	200
25	Joseph Huang	1996-2000
26	Andre Lester	1997
27	Robert Villareal	1997
28	Maria V. Braithwaite	1996
29	April E. Sullivan	1995
30	Gregory A. Rupert	1995
31	Chris G. Scislowicz	1995
32	Lacy M. Whatley	1995
33	Andre E. Davis	1995
34	Christie M. Gooch	1995
35	Robert E. Phelts	1992-1995
36	Christina I. Rodriguez	1995
37	Kenji Takeuchi	1994
38	Trina D. Clark	1993
39	LeDerrick A. Bouknight	1993
40	Kimberly L. Cardwell	1992
41	Clarence B. McCollum	1992
42	Tom R. Minnich	1992
43	Toya R. Pettiegrew	1992

#### B4. Service on Thesis or Dissertation Committees

##### B4a. Internal

	Student	School	Advisor	Thesis Type	Year of Degree
1	Chuchu Zhang	MSE	Richard Neu	PhD	2020
2	Huaidong Yang		Itzhak Green	PhD	2020
3	Ye Qi	ME	Michael Varenberg	PhD	2020
4	Brian Senft	ME	Richard Neu, Richard Cowan	MS	2017
5	Phil Varney	ME	Itzhak Green	PhD	2016

6	Patrick Smyth	ME	Itzhak Green	PhD	2016
7	Seth Young	MSE	Vladimir Tsukruk	PhD	2016
8	Ebony Rowe	ME	Comas Haynes	MS	2016
9	Matthew Siopis	ME	Richard Neu, Richard Cowan	PhD	2015
10	Yuli Huang	ME	Richard Salant	PhD	2014
11	Paul Matthew	ME	Richard Neu	MS	2013
12	John Payne	ME	Richard Salant	MS	2013
13	Azam Thatte	ME	Richard Salant	PhD	2010
14	Bo Yang	ME	Richard Salant	PhD	2010
15	Kory Swope	ME	Richard Salant	MS	2010
16	Jeremy Dawkins	ME	Richard Neu	MS	2008
17	Lei Wang	ME	Richard Salant	PhD	2008
18	Bummo Chung	ME	Itzhak Green, Richard Neu	MS	2007
19	Murat Erozy	CEE	Reginald DesRoches	PhD	2007
20	John Moody	ME	Itzhak Green	MS	2007
21	Nicholas Maser	ME	Richard Salant	MS	2006
21	Raghvendra Vijaywargiya	ME	Itzak Green	MS	2006
22	Dawei Shen	ME	Richard Salant	PhD	2005
23	Sam Ng	ME	Steven Danyluk	PhD	2005
24	Alicia Fortier	ME	Richard Salant	MS	2004
25	Ann Rocke	ME	Richard Salant	MS	2004
26	Sarne Hutcherson	ME	Wenjing Ye	MS	2004
27	Andrew Watt	ME	Steven Danyluk	MS	2004
28	Susendar Muthukumar	CEE	Reginald DesRoches	MS	2003
29	Vahidin Alajbegovic	ME	Richard Slant	MS	2003
30	John Pape	ME	Richard Neu	PhD	2002
31	J. Robert Height	ME	Steven Danyluk	PhD	2002
32	Yu-Hsing Wang	CEE	J. Carlos Santamarina	PhD	2001
33	Shunhe Xiong	ME	Richard Salant	PhD	2001
34	Brad Miller	ME	Itzhak Green	PhD	2000
35	Susan Harp	ME	Richard Salant	PhD	2000
36	Philippe Sucusky	ME	Steven Danyluk	PhD	2000
37	Fanghui Shi	ME	Richard Salant	PhD	1999
38	Chad Korach	ME	Steven Danyluk	MS	1999
39	Dan Ezenekwe	ME	Kok-Meng Lee	PhD	1998
40	Terry Thomas	ME	Steven Danyluk	MS	1998
41	Lei Shan	ME	Steven Danyluk	MS	1998
42	Daisuke Yano	ME	Steven Danyluk	MS	1998
43	Francis Mess	ME	Steven Danyluk	MS	1997
44	William Anderson	ME	Jacek Jarzynski, Richard Salant	MS	1997
45	Kenneth Hamall	ME	Steven Danyluk	MS	1997
46	Lennox Reid	ME	Steven Danyluk	MS	1996
47	Bo Ruan	ME	Richard Salant	PhD	1995

48	David Blasbalg	ME	Richard Salant	PhD	1994
49	Thomas Taylor	ME	Itzhak Green	MS	1992
50	Hisham Hegab	ME	Richard Salant, Izhak Green	MS	1991
51	Paul Wolff	ME	Richard Salant	MS	1991

**B4.b. External**

No data.

**B5. Mentorship of Postdoctoral Fellow or Visiting Scholars**

**B5.a. Postdoctoral Fellows**

No data.

**B5.b. Visiting Scholars**

1. Tsukasa Matsuura, 1990-1991.

**C. EDUCATIONAL INNOVATIONS AND OTHER CONTRIBUTIONS**

*New Courses Developed*

- ME 6242, Contact Mechanics [with R. Neu]
- ME 7226, Interface and Surface Properties (semester version) [with S. Danyluk]
- ME 4193, Tribological Design (semester version)
- ME 4193, Design and Materials Selection for Tribological Applications

*Instructional Materials Developed*

Apparatuses for classroom demonstration\*:

- “Cardan Universal Joint”
- “Spring-Mass Damper System”
- “Flywheel-Piston System”
- “Gear Demonstrations”

\*Developed by undergraduate design teams in conjunction with J. Streator’s participation as a Georgia Tech Foundation Teaching Fellow.

**VI. SERVICE**

**A. PROFESSIONAL CONTRIBUTIONS**

**A1. Editorial Board Membership**

*Editorial Board of Technical Journals*

- Lubricants, 2014- 2016
- ISRN Tribology, 2012, 2013

*Associate Editor of Technical Journals*

- ASME Journal of Tribology, 1999-2005

**A2. Society Office, Activities, and Memberships**

- Member, STLE Fellows Selection Committee, 2018-2020
- Chair, ASME Tribology Division Executive Committee, 2015-2016

- Vice-Chair & Treasurer, ASME Tribology Division Executive Committee, 2014
- Member, ASME Tribology Division, Executive Committee (Technical Publications Chair), 2010-2013
- Secretary, ASME Research Committee on Tribology, 2003-2011
- Member, KL Johnson Award Committee, Contact Mechanics Technical Committee, ASME, 2007
- Chair, KL Johnson Award Committee, Contact Mechanics Technical Committee, ASME, 2005-2006
- Member, ASME Research Committee on Tribology, 2003-2006
- Chair, STLE Awards Committee, 2005
- Member STLE Awards Committee, 2002, 2003
- Conference Planning Committee, WEE '03, National Science Foundation Workshop, September, 2003
- Faculty Mentor, WEE' 01, National Science Foundation Workshop, October, 2001

### **A3. Organizational and Chairmanship of Technical Sessions, Workshops and Conferences**

- Session Chair, 2019 BALLTRIB International Conference, Kaunas, Lithuania, November 2019
- Inaugural Chair, Conference Planning Committee, 2014 STLE Tribology Frontiers Conference, May 2014
- Co-organizer, Lubricant Fundamentals Track, 2013 World Tribology Congress, 2012-2013
- Session Chair, 2013 World Tribology Congress, Turin, Italy, November, 2013
- Technical Program Chair, Conference Planning Committee, IJTC, 2012
- Secretary, Conference Planning Committee, ASME/STLE IJTC 2006-2012
- Session Chair, 3rd World Tribology Congress, Kyoto, Japan, September, 2009
- Session Chair, STLE/ASME International Tribology Conference, Miami, FL, October, 2008
- Session Organizer, IMECE2006, Chicago, IL, November, 2006
- Session Chair, IMECE2006, Chicago, IL, November, 2006
- Session Chair, 3rd World Tribology Congress, Washington D. C., September, 2005
- Session Chair, ASME/STLE International Tribology Conference, Long Beach, CA, October, 2004
- Session Chair, The 2nd Asia International Conference on Tribology, Jeju Island, Korea, October, 2002
- Session Chair, ASME/STLE International Tribology Conference, Cancun, Mexico, October, 2002
- Session Chair, NATO Advanced Study Institute on Fundamentals of Tribology and Bridging the Gap Between the Macro- and Micro/Nanoscales, August, 2000.
- Session Moderator, Georgia Conference on College and University Teaching, Kennesaw State University, March 1999
- Member, Panel Discussion on "Nature of Friction Coefficient," STLE Annual Meeting, May 1993, Calgary, Alberta, Canada
- Session Chair, Joint US-Taiwan Symposium on Advanced Manufacturing Processes, Georgia Institute of Technology, February 1993
- Session Chair, Spring Meeting of the Materials Research Society, Anaheim, CA, April 1991

#### **A4. Technical Journal of Conference Referee Activities**

##### *Reviewer Work for Technical Journals*

- Lubricants, 2018-2020
- Tribology Letters, 2000, 2003, 2004, 2006, 2007, 2009-2020
- Journal of Tribology, 1990-1997, 1999-2012, 2015, 2018, 2020
- International Journal of Solids and Structures, 2006, 2008, 2020
- Journal of Applied Physics, 1995, 1996, 2000, 2003, 2004, 2011, 2012, 2015, 2016
- Tribology International, 1995, 2002, 2014, 2016-2018
- ACS: Applied Materials and Interfaces, 2015
- Friction, 2015
- Journal of Engineering Tribology, 2013, 2014
- Lubrication Science, 2013
- AIP Advances, 2012
- Tribology Transactions, 1993, 1996, 1999-2003, 2011
- Nanoscale, 2011
- Journal of Thermophysics and Heat Transfer, 2011
- IEEE Transactions on Plasma Science, 2010
- Applied Physics Letters, 2000, 2003-2005, 2020
- IEEE Transactions on Magnetism, 2002
- Wear, 1995-1998, 2000-2002, 2005, 2016
- Computer Modeling in Engineering & Sciences, 2001
- Nature, 1991

##### *Reviewer Work for Technical Conferences*

- World Tribology Congress 2013
- International Joint Tribology Conference, 2006-2013
- IMECE 2006

#### **A5. Proposal Panels and Reviews**

- National Science Foundation, 1991, 1993-2002, 2005, 2013, 2016, 2017, 2020
- Army Research Laboratory, 2014
- University of Wisconsin- Milwaukee Research Growth Initiative, 2012, 2013
- Shota Rustaveli National Science Foundation, Georgia, 2012
- Exact Sciences and Technology Israel Science Foundation, 2010
- Linneus Grant Foundation, 2008
- Georgian National Science Foundation, 2007
- Civilian Research and Development Foundation, 2001, 2005
- University of South Carolina NanoCenter, 2003

#### **A6. Other Involvement**

##### *Reviewer Work for Misc. Agencies*

- CRC Press/Taylor & Francis, 2013
- National Research Council, 2002

##### *Other Professional Service*

- Presenter, STLE Camp, STLE Annual Meeting, May 2017

- Invited Speaker, Preparing Future Faculty Summer Institute, Howard University, 2011, 2012

**B. PUBLIC AND COMMUNITY SERVICE**

No data.

**C. INSTITUTE CONTRIBUTIONS**

**C1. Institute Committee Service**

- Chair, Student Regulations Committee, 2006-2010
- Chair, Faculty Honors Committee, 2000-2001
- Chair, Student Grievance and Appeal Committee, 1995-1996
- Member, Sigma Xi M. S. Thesis Award Committee, 2003
- Member, Steering Committee, FACES Fellowship Program, 1998-2012
- Member, Student Regulations Committee, 2004, 2005
- Member, Student Honors Committee, 2002, 2003
- Member, Provost Search Committee, 2000-2001
- Member, Faculty Honors Committee, 1998-2000
- Member, Faculty Recruiting Committee, 1997-1998
- Member, Student Grievance and Appeal Committee, 1994-95, 1996-1997, 1997-1998
- Member, Vice President of Student Services Search Committee, 1991

**C2. College Committee Service**

- Member, RPT College Level Committee, 2010-2011
- Member, Search Committee, Woodruff School Chair, 2007
- Member, Dean's Task Force on Student-Focused Education, College of Engineering, 2000
- Member, Strategic Planning Committee, 1992

**C3. School Committee Service**

- Chair, Ph.D. Thermodynamics Qualifying Exam Committee, 2007-2008, 2011-2018
- Chair, Ph.D. Tribology Qualifying Exam Committee, 1992-2002, 2011, 2012
- Chair, Ph.D. Applied Math Qualifying Exam Committee, 2009-2010
- Chair, Faculty Recruiting Committee, 2007
- Chair, Mechanical Systems Academic Area Committee for the ABET evaluation, 2002
- Chair, Faculty Advisory Committee, 2002
- Chair, Jack M. Zeigler Outstanding Educator Award, 1998-1999, 2002
- Chair, Faculty Awards Committee, 1995-1997
- Member, Undergraduate Committee, 1994-1995, 2011-2016
- Member, Ph.D. Applied Math Qualifying Exam Committee, 2010-2011
- Member, Faculty Awards Committee, 2004-2005
- Member, Faculty Advisory Committee, 1992-1994, 2000-2001, 2004-2005
- Member, Graduate Committee, 2002
- Member, Jack M. Zeigler Outstanding Educator Award, 1999-2001
- Member, Instructional Laboratory Committee, 1994-1995
- Member, Graduate Student Recruiting Committee, 1990-1993

- Member, Strategic Planning Committee, 1991

**C4. Program Development: Research**

No data.

**C5. Program Development: Academic**

No data.

**C6. Other Institute Service Contributions**

- Judge, Presidential Scholar Faculty Round Table, Georgia Institute of Technology, 2012
- Advisor, Women's Ultimate Frisbee Club, Georgia Institute of Technology, 1999-2012
- Panelist, GWW CAREER Panel, 2012.
- Mentor, NSF FAST Scholarship Program, Georgia Institute of Technology, 2002-2009
- Advisor, ASME Student Chapter, 2002-2006
- Speaker, GT2 (BGSA), Georgia Institute of Technology, March, 2006
- Judge, Oral Presentations, GT2 (BGSA), Georgia Institute of Technology, March, 2005
- Co-host, Faculty Fellows Visit, FOCUS 2004, 2005
- Panelist, Academic Careers Panel, FOCUS 2004, Georgia Institute of Technology, January 2004
- Panelist, University System of Georgia Leadership Conference (Macon, GA), 2004
- Panelist, University System of Georgia Leadership Conference (Jekyll Island), 2000-2003
- Participant, CETL Student/Faculty Roundtable, January, 2004
- Speaker, Pi Tau Sigma Seminar on Graduate School, November, 2004
- Panelist, MEGA Graduate Student Seminar: "Defining the Research Work," November 2004
- Mentor, STEP, Georgia Institute of Technology, 2003, 2004
- Mentor, NASA SHARP Summer Program, 2003
- Speaker, ME-Focused Psych 1000 Class, 2002, 2003
- Presenter to SURE undergraduate research program, Georgia Institute of Technology, 2002, 2003
- Presenter to MITE/PREP students, College of Engineering, Georgia Institute of Technology, 1992, 1994-1998, 2000-2003
- Organizer, Tribology Seminar Series, G. W. Woodruff School of Mechanical Engineering, 1990-2003
- Contributor of Exam Question, National TEAMS Program, Junior Engineering Technical Society (JETS), 1994-1999, 2001-2003
- Panelist, OMED Transitions Program, Georgia Institute of Technology, 2001-2003 Interviewer, Marshall/Rhodes Scholarship Mock Interviews, Georgia Institute of Technology, 2003, 2004
- Panelist, FASET Student Orientation, September, 1999, July, 2001-2002

- Judge, Homecoming Talent Show and Mock Rock, October, 2001
- Presenter, ASME Student Chapter meeting, October 2001
- Mentor, College of Engineering Mentor Program, 2001
- Judge, Final Design Projects, ME 2110, 2000, 2001
- Presenter, visiting High School Students, Georgia Institute of Technology, February 2001.
- Mentor, NASA Sharp Plus Program, Summer 2000
- Judge, Ms. Georgia Tech Contest, October, 2000
- Judge, NSBE Technical Symposium, Georgia Institute of Technology, 1999, 2000
- Judge, SECME National Final Student Poster and Essay Competitions, 1999, 2000
- Speaker, FASET Orientation, Georgia Institute of Technology, September 1999
- Volunteer, Study Abroad Fair, Georgia Institute of Technology, September 1999
- Evaluator, Presidential Scholars Group Presentations, Georgia Institute of Technology, November, 1997
- Judge, Debate on Integration, Delta Sigma Theta Sorority, Xi Alpha Chapter, Georgia Institute of Technology, April 1995
- Session Chairman, Graduate Student Symposium, Georgia Institute of Technology, 1993
- Judge, National Engineering Design Challenge, National Engineering Honor Society, Georgia Institute of Technology, January 1993
- Interviewer, President's Scholarship Program, Georgia Institute of Technology, 1992, 1993
- Participant, ASSET Faculty Friends Program, Center for the Enhancement of Teaching and Learning, Georgia Institute of Technology, 1992-93, 1993-94
- Judge, Homecoming Design Competition, Georgia Institute of Technology, 1993
- Panel Member, 1991 Georgia Seminar, Hugh O' Brian Youth Foundation, Georgia Institute of Technology, May 1991