Yannis KORKOLIS
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RESEARCH INTERESTS

Plasticity, Constitutive Modeling, Ductile Fracture, Experimental and Numerical Methods, Formability, Plastic Forming of Metals, Metal Cutting, Additive Manufacturing, Biomimetics

EDUCATION

2009	PhD, Engineering Mechanics The University of Texas at Austin Thesis: *Formability and Hydroforming of Anisotropic Aluminum Tubes* Advisor: S. Kyriakides
2002	MSc, Computational Mechanics National Technical University of Athens, Greece Thesis: *Numerical Simulation of the Elastoplastic Response of a Thin-walled Tube under Combined Loading* Advisor: Y.F. Dafalias
1998	Diploma in Mechanical Engineering (5-year course) National Technical University of Athens, Greece Thesis: *Theoretical Analysis of Ultra-Precision Machining* Advisors: A.G. Mamalis and D.E. Manolakos

PROFESSIONAL APPOINTMENTS

2019-present	**Associate Professor** The Ohio State University
2018-present	**Visiting Researcher** Institute of Global Innovation Research, Tokyo University of Agriculture and Technology, Koganei, Japan
2009-2018	**Associate (2015-2018) & Assistant (2009-2015) Professor** University of New Hampshire
Jul.-Aug. 2012	**Visiting Assistant Professor** Tokyo University of Agriculture and Technology, Koganei, Japan
2005-2009	**Instructor** The University of Texas at Austin

2001-2005 **Graduate Research Assistant (1/2 time appointment)**
The University of Texas at Austin

2001-2005 **Teaching Assistant (1/2 time appointment)**
The University of Texas at Austin

2000-2001 **Graduate Research Assistant**
National Technical University of Athens, Greece

1999-2000 **Military Service**
Hellenic Army – Infantry Corps (seconded to the Technical Corps)

Sum.1998 **Student Intern**
Corinth Pipe Works, Greece

Sum.1997 **Student Intern**
Hellenic Aerospace Industry – Aerostructures Manufacturing Directorate

1996-1998 **Undergraduate Research Assistant**, Manufacturing Technology Lab
National Technical University of Athens, Greece

SELECTED AWARDS AND DISTINCTIONS

2018 Ralph R. Teetor Educational Award
Society of Automotive Engineers

2013 Best reviewer for 2012
Journal of Manufacturing Science and Engineering-ASME

2012 Faculty Early Career Development (CAREER) Award
National Science Foundation

2012 Best Organizer of Symposium and Sessions (BOSS) Award, with E. Chu
2012 ASME International Conference on Manufacturing Science and Engineering, Notre Dame, Indiana, Jun. 4-8, 2012

2011 Best Young Researcher Award
5th International Conference on Tube Hydroforming, Noboribetsu, Japan, Jul. 24-27

2008 Scholarship from the Hellenic Professional Society of Texas

2000-2001 Scholarship to attend the M.Sc. program in Computational Mechanics, awarded to 4 students out of a class of approx.30
National Technical University of Athens, Greece

1998 Top 5% of graduating class of 162
Department of Mechanical Engineering
National Technical University of Athens, Greece

BOOKS AND BOOK CHAPTERS

1. F. Barlat, T. Kuwabara and **Y.P. Korkolis**, "Anisotropic plasticity and application to plane stress", Chapter in the "Encyclopedia of Continuum Mechanics", H. Altenbach and A.

Öchsner (Eds.), Springer, 2020.

2. B.L. Kinsey and **Y.P. Korkolis**, "High-Speed Forming (Electromagnetic, Electrohydraulic and Explosive Forming)", Chapter in the book "Modern Manufacturing Technologies", M. Koc and T. Ozel (Eds.), John Wiley, 2019.

3. C.P. Dick and **Y.P. Korkolis**, "Novel method for combined tension and shear loading of thin-walled tubes", in "60 Excellent Inventions in Metal Forming", a volume in honor of the 60th Birthday of Professor Matthias Kleiner, Edited by A.E. Tekkaya, W. Homberg and A. Brosius, Springer, 2015.

REVIEW JOURNAL PUBLICATIONS

1. M.G. Lee, **Y.P. Korkolis** and J.H. Kim, "Recent Developments in Hydroforming Technology", *Proceedings of Institution of Mechanical Engineers (UK) – Journal of Engineering Manufacture,* 229 (2015) 572–596 – Opening/review article for the special issue on *TubeHydro 2013* Conference

JOURNAL PUBLICATIONS (under review or under revision)

3. J. Ha, S. Coppieters and **Y.P. Korkolis**, "On the expansion of a circular hole in an orthotropic elastoplastic thin sheet", submitted to *International Journal of Mechanical Sciences*

2. B.K. Roy, **Y.P. Korkolis**, Y. Arai, W. Araki, T. Iijima and J. Kouyama, "Experimental and numerical investigation of deformation characteristics during tube-spinning", submitted to *Journal of Manufacturing Science and Engineering*

1. **Y.P. Korkolis**, F. Barlat and T. Kuwabara, "Simplified representations of multiaxial test results in plasticity", submitted to *International Journal of Material Forming*

JOURNAL PUBLICATIONS

46. T.J. Barrett, S. Takagi, N. Islam, T. Kuwabara, T. Hassan, B.L. Kinsey, M. Knezevic and **Y.P. Korkolis**, "Material modeling and simulation of continuous-bending-under-tension of AA6022-T4", *Journal of Materials Processing Technology*, 116658 (2020)

45. C.M. Poulin, S.C. Vogel, **Y.P. Korkolis**, B.L. Kinsey and M. Knezevic, "Experimental studies into the role of cyclic bending during stretching of dual-phase steel sheets", *International Journal of Material Forming*, (2020) 1-16

44. B.R. Mitchell, J.C. Klewicki, Y.P. Korkolis and B.L. Kinsey, "Normal impact force of Rayleigh jets", *Physical Review Fluids* 4 (2019) 113603

43. J. Ha, M. Baral and **Y.P. Korkolis**, "Ductile fracture of an aluminum sheet under proportional loading", *Journal of the Mechanics and Physics of Solids,* 132 (2019) 103685

42. S. Jin, **Y.P. Korkolis** and Y. Li, "Shear Resistance of an Auxetic Chiral Mechanical Metamaterial", *International Journal of Solids and Structures,* 174–175 (2019) 28–37

41. P. Knysh, K. Sasaki, T. Furushima, M. Knezevic and **Y.P. Korkolis**, "A shape interpolation

procedure: application to creating explicit grain structure models based on partial data sets", *Computational Materials Science*, 167 (2019) 42-51

40. B.R. Mitchell, J.C. Klewicki, **Y.P. Korkolis** and B.L. Kinsey, "The transient force profile of low-speed droplet impact: measurements and scaling", *Journal of Fluid Mechanics,* 867 (2019) 300-322

39. M. Baral, J. Ha and **Y.P. Korkolis**, "Plasticity and ductile fracture modeling of an Al–Si–Mg die-cast alloy", *International Journal of Fracture*, 216 (2019) 101–121

38. T.J. Roemer, T.J. Barrett, M. Knezevic, B.L. Kinsey and **Y.P. Korkolis**, "Experimental study of continuous-bending-under-tension of AA6022-T4", *Journal of Materials Processing Technology,* 266 (2019) 707–714

37. C.M. Poulin, **Y.P. Korkolis**, B.L. Kinsey and M. Knezevic, "Over five-times improved elongation-to-fracture of dual-phase 1180 steel by continuous-bending-under-tension", *Materials and Design,* 161 (2019) 95–105

36. J. Ha, M. Baral and **Y.P. Korkolis**, "Plastic anisotropy and ductile fracture of bake-hardened AA6013 aluminum sheet", *International Journal of Solids and Structures,* 155 (2018) 123–139

35. **Y.P. Korkolis**, B.R. Mitchell, M.R. Locke and B.L. Kinsey, "Plastic flow and anisotropy of a low-carbon steel over a range of strain-rates", *International Journal of Impact Engineering*, 121 (2018) 157–171

34. B.L. Kinsey, S. Zhang and **Y.P. Korkolis**, "Semi-analytical modelling with numerical and experimental validation of electromagnetic forming using a uniform pressure actuator", *CIRP-Annals of Manufacturing Technology,* 67 (2018) 285–288

33. N. Deng and **Y.P. Korkolis**, "Determination of the shear modulus of thin orthotropic sheets with the anticlastic-plate-bending experiment", *Journal of Engineering Materials and Technology-ASME,* 140 (2018) 041011-1, -7

32. N. Deng and **Y.P. Korkolis**, "Elastic anisotropy of dual-phase steels with varying martensite content", *International Journal of Solids and Structures*, 141–142 (2018) 264–278

31. M. Baral, T. Hama, E. Knudsen and **Y.P. Korkolis**, "Plastic deformation of Commercially-Pure Titanium: experiments and modeling", *International Journal of Plasticity,* 105 (2018) 164–194

30. T. Maeda, N. Noma, T. Kuwabara, F. Barlat and **Y.P. Korkolis**, "Measurement of the strength differential effect of DP 980 steel sheet and experimental validation using pure bending test", *Journal of Materials Processing Technology*, 256 (2018) 247-253

29. N. Deng, T. Kuwabara and **Y.P. Korkolis**, "On the non-linear unloading behavior of a biaxially loaded dual-phase steel sheet", *International Journal of Mechanical Sciences*, 138-139 (2018) 383-397

28. P. Knysh and **Y.P. Korkolis**, "Identification of the post-necking hardening response of rate- and temperature-dependent metals", *International Journal of Solids and Structures*, 115–116 (2017) 149–160, **and**
P. Knysh and **Y.P. Korkolis**, "blackbox: A procedure for parallel optimization of expensive

black-box functions", *arXiv 1605.00998v1 [cs.MS] 3 May 2016*

27. H. Tian, B. Brownell, M. Baral and **Y.P. Korkolis**, "Earing in cup-drawing of anisotropic Al-6022-T4 sheets", *International Journal of Materials Forming*, 10 (2017) 329–343

26. O. Majidi, F. Barlat, **Y.P. Korkolis**, J.W. Fu, and M.G. Lee. "Thermal effects on the enhanced ductility in non-monotonic uniaxial tension of DP780 steel sheet." *Metals and Materials International* 22, 6 (2016) 968-973

25. O. Majidi, B.C. De Cooman, F. Barlat, M.G. Lee and **Y.P. Korkolis**, "Thermomechanical response of a TWIP steel during monotonic and non-monotonic uniaxial loading." *Materials Science and Engineering: A*, 674 (2016) 276-285

24. M. Zecevic, **Y.P. Korkolis**, T. Kuwabara and M. Knezevic. "Dual-phase steel sheets under cyclic tension–compression to large strains: Experiments and crystal plasticity modeling." *Journal of the Mechanics and Physics of Solids* 96 (2016) 65-87

23. J.Y. Zhai, T. Luo, X. Gao, S.M. Graham, M. Baral, **Y.P. Korkolis**, and E. Knudsen. "Modeling the ductile damage process in commercially pure titanium." *International Journal of Solids and Structures*, 91 (2016) 26-45

22. M. Zecevic, T.J. Roemer, M. Knezevic, **Y.P. Korkolis** and B.L. Kinsey, "Residual Ductility and Microstructural Evolution in Continuous-Bending-under-Tension of AA-6022-T4", *Materials* (Special Issue: *Forming of Light Weight Materials*), 9 (2016) 130

21. H.Y. Gong, S. Wang, P. Knysh and **Y.P. Korkolis**, "Experimental investigation of the mechanical response of laser-welded dissimilar blanks from advanced- and ultra-high-strength steels", *Materials & Design*, 90 (2016) 1115-1123

20. P.W. Ripley and **Y.P. Korkolis**, "Multiaxial Deformation Apparatus for Testing of Microtubes Under Combined Axial-Force and Internal-Pressure", *Experimental Mechanics*, 56 (2016) 273-286

19. C.P. Dick and **Y.P. Korkolis**, "Anisotropy of thin-walled tubes by a new method of combined tension and shear loading", *International Journal of Plasticity*, 71 (2015) 87-112

18. C.P. Nikhare, **Y.P. Korkolis** and B.L. Kinsey "Formability enhancement in titanium tube-flaring by manipulating the deformation path", *Journal of Manufacturing Science and Engineering-ASME*, 137 (2015), 051006-1 to -9

17. P. Knysh and **Y.P. Korkolis**, "Determination of the fraction of plastic work converted into heat in metals", *Mechanics of Materials* 86 (2015), 71-80

16. N. Deng, T. Kuwabara and **Y.P. Korkolis**, "Cruciform specimen design and verification for constitutive identification of anisotropic sheets", *Experimental Mechanics* 55 (2015), 1005-1022

15. C.P. Dick and **Y.P. Korkolis**, "Strength and ductility evaluation of cold-welded seams in aluminum tubes extruded through porthole dies", *Materials & Design 67* (2015), 631-636

14. M. Knezevic, M. Jahedi, **Y.P. Korkolis** and I.J. Beyerlein, "Material based design of the extrusion of bimetallic tubes", *Computational Materials Science* 95 (2014), 63-73

13. N.H. Moser, T.S Gross and **Y.P. Korkolis**, "Martensite formation in conventional and

isothermal tension of 304 stainless steel measured by X-ray diffraction*", Metallurgical and Materials Transactions - A* 45 (2014), 4891-4896

12. C.P. Dick and **Y.P. Korkolis**, "Mechanics and full-field deformation study of the ring hoop tension test", *International Journal of Solids and Structures* 51 (2014), 3042-3057

11. J.F. Wilson, B.L. Kinsey and **Y.P. Korkolis**, "Development of a biaxial loading frame for sheet metal", *Journal of Manufacturing Processes–SME* 15 (2013), 580-585

10. N. Deng and **Y.P. Korkolis**, "Numerical study of the lateral crushing and reinflation of stainless steel and aluminum tubes", *Journal of Manufacturing Processes–SME,* 15 (2013), 242-255

9. G.W. Cullen and **Y.P. Korkolis**, "Ductility of 304 stainless steel under pulsed uniaxial loading", *International Journal of Solids and Structures*, 50 (2013), 1621-1633

8. L. Wang, **Y.P. Korkolis** and B.L. Kinsey**,** "Investigation of strain gradients and magnitudes during microbending", *Journal of Manufacturing Science and Engineering-ASME*, 134 (2012), 041011-1/-9

7. **Y.P. Korkolis** and S. Kyriakides, "Hydroforming of anisotropic aluminum tubes. Part II: analysis", *International Journal of Mechanical Sciences*, 53 (2011), 83-90

6. **Y.P. Korkolis** and S. Kyriakides, "Hydroforming of anisotropic aluminum tubes. Part I: experiments", *International Journal of Mechanical Sciences*, 53 (2011), 75-82

5. T. Giagmouris, S. Kyriakides, **Y.P. Korkolis** and L.-H. Lee, "On the localization and failure in aluminum shells due to crushing-induced bending and tension", *International Journal of Solids and Structures*, 47 (2010), 2680-2692

4. **Y.P. Korkolis**, S. Kyriakides, T. Giagmouris and L.-H. Lee, "Constitutive modeling and rupture predictions of Al-6061-T6 tubes under biaxial loading paths", *Journal of Applied Mechanics-ASME*, 77 (2010), 064501-1/-5

3. **Y.P. Korkolis** and S. Kyriakides, "Path-dependent failure of inflated aluminum tubes", *International Journal of Plasticity*, 25/11 (2009) 2059-2080

2. **Y.P. Korkolis** and S. Kyriakides, "Inflation and burst of anisotropic aluminum tubes, part II: an advanced yield function including deformation-induced anisotropy", *International Journal of Plasticity*, 24/9 (2008) 1625-1637

1. **Y.P. Korkolis** and S. Kyriakides, "Inflation and burst of anisotropic aluminum tubes for hydroforming applications", *International Journal of Plasticity*, 24/3 (2008) 509-543

PAPERS IN CONFERENCE PROCEEDINGS (PEER-REVIEWED)

70. K. Chen and **Y.P. Korkolis**, "Industry 4.0 in stamping: A wrinkling indicator for reduced-order modeling of deep-drawing processes", *30th International Conference on Flexible Automation and Intelligent Manufacturing (FAIM2020)*, Athens, Greece, 15-18 June

69. M. Baral and **Y.P. Korkolis**, "Ductile fracture of an aluminum tube inflated under proportional and non-proportional loading", *XXV International Conference on Theoretical and Applied Mechanics ICTAM*, Milano, Italy, 23-28 August 2020

68. B.R. Mitchell, J.C. Klewicki, A. Nassiri, **Y.P. Korkolis** and B.L. Kinsey, "A comparison of the impact force of a single droplet and a Rayleigh jet with a solid surface", *XXV International Conference on Theoretical and Applied Mechanics ICTAM*, Milano, Italy, 23-28 August 2020

67. B.K. Roy, **Y.P. Korkolis**, Y. Arai, W. Araki, T. Iijima and J. Kouyama, "Influence of axial feed-rate on shape and thickness changes during multi-pass tube spinning: experiments and modelling", *International Conference on the Technology of Plasticity ICTP 2020*, Columbus, OH, USA, July 26-31

66. M. Kim, J. Ha and **Y.P. Korkolis**, "Design of a New Cruciform-Like Specimen for Combined Tension and Shear of Metal Sheets", *International Conference on the Technology of Plasticity ICTP 2020*, Columbus, OH, USA, July 26-31

65. J. Ha and **Y.P. Korkolis**, "An Application of Homogeneous Anisotropic Hardening Model to the Prestrained Hole-Expansion Experiment", *International Conference on the Technology of Plasticity ICTP 2020*, Columbus, OH, USA, July 26-31

64. J. Ha, A. Piccininni, **Y.P. Korkolis**, G. Palumbo, M. Knezevic and B.L. Kinsey, "Formability improvements of AA5754-H32 at room temperature via Continuous Bending under Tension (CBT) and pre-forming heat treatment", *International Conference on the Technology of Plasticity ICTP 2020*, Columbus, OH, USA, July 26-31

63. M. Kim, J. Ha and **Y.P. Korkolis**, "Shape Optimization of a Cruciform-Like Specimen for Combined Tension and Shear Loading", *The 12th International Conference and Workshop on Numerical Simulation of 3D Sheet Metal Forming Processes, NUMISHEET 2020*, Toronto, Canada, July 19-24

62. J. Ha and **Y.P. Korkolis**, "Sensitivity Study of Plastic Anisotropy on Failure Prediction in Hole-Expansion", *The 12th International Conference and Workshop on Numerical Simulation of 3D Sheet Metal Forming Processes, NUMISHEET 2020*, Toronto, Canada, July 19-24

61. B.R. Mitchell, S.A.R. Demian, **Y.P. Korkolis** and B.L. Kinsey, "Experimental comparison of material removal rates in abrasive waterjet cutting and a novel droplet stream technique", *48th SME North American Manufacturing Research Conference, NAMRC 48*, Cincinnati, Ohio, USA, June 22-26 2020

60. E.M. Mamros, B.L. Kinsey and **Y.P. Korkolis**, "Analytical investigation of varying deformation paths using for microtube inflation and axial tension machine", Proceedings of the ASME 2020 15th International Manufacturing Science and Engineering Conference MSEC 2020, Cincinnati, OH, USA, June 22-26, 2020

59. M. Kim, J. Ha and **Y.P. Korkolis**, "Prediction of transient R-values under non-proportional loading of DP980 steel using a distortional hardening model", *39th International Deep-Drawing Research Group Conference*, June 7-11, 2020, Busan, South Korea

58. J. Ha, Y.Choi, M.-G. Lee and **Y.P. Korkolis**, "Enhanced formability in hole-expansion test of AA7075 in W-temper", *39th International Deep-Drawing Research Group Conference 2020*, Busan, South Korea, June 7-11

57. M. Baral and **Y.P. Korkolis**, "Ductile fracture of aluminum tubes for hydroforming applications", *9th International conference on tube hydroforming (TUBEHYDRO 2019)*, Kaohsiung, Taiwan, November 18-21

56. B.K. Roy, **Y.P. Korkolis**, Y. Arai, W. Araki, T. Iijima and J. Kouyama, "Experimental and finite element investigation of wrinkling during spinning of a thin-walled tube", *The 13th International Conference on Numerical Methods for Industrial Forming Processes, NUMIFORM 2019*, Portsmouth, NH, June 23-27

55. P. Knysh, K. Sasaki, T. Furushima, M. Knezevic and **Y.P. Korkolis**, "Crystal plasticity analysis of surface roughening of an Al-Mg oligocrystal", *The 13th International Conference on Numerical Methods for Industrial Forming Processes, NUMIFORM 2019*, Portsmouth, NH, June 23-27

54. J. Ha, M. Dirian, C. Dunn and **Y.P. Korkolis**, "Prestraining effect on failure behavior in hole-expansion test of AA6022-T4 sheet", *The 13th International Conference on Numerical Methods for Industrial Forming Processes, NUMIFORM 2019*, Portsmouth, NH, June 23-27

53. T. Hama, K. Hirano, R. Matsuura, **Y.P. Korkolis** and H. Takuda, "Crystal plasticity finite-element simulation of deep drawing of commercially-pure titanium sheet", *The 13th International Conference on Numerical Methods for Industrial Forming Processes, NUMIFORM 2019*, Portsmouth, NH, June 23-27

52. M. Baral and **Y.P. Korkolis**, "Ductile fracture modeling of aluminum tubes under combined internal pressure & axial loading", *The 13th International Conference on Numerical Methods for Industrial Forming Processes, NUMIFORM 2019*, Portsmouth, NH, June 23-27

51. B.R. Mitchell, B.L. Kinsey and **Y.P. Korkolis**, "A numerical investigation of a shear-compression-disk specimen over a range of strain-rates", *The 13th International Conference on Numerical Methods for Industrial Forming Processes, NUMIFORM 2019*, Portsmouth, NH, June 23-27

50. M. Baral, J. Ha and **Y.P. Korkolis**, "Ductile fracture of heat-treated AA6111 sheet under proportional loading", *The 13th International Conference on Numerical Methods for Industrial Forming Processes, NUMIFORM 2019*, Portsmouth, NH, June 23-27

49. J. Ha, A. Breunig, J. Fones, F. Hoppe, **Y.P. Korkolis**, P. Groche and B.L. Kinsey, "Reduction of earing during AA1100-O cup drawing using 3D servo-press", *38th International Deep-Drawing Research Group Conference 2019*, Enschede, The Netherlands, June 3-7

48. J. Ha, M. Dirian, C. Dunn and **Y.P. Korkolis**, "Failure of AA6022-T4 Sheets in Hole-Expansion after Uniaxial Prestrain", *The 22nd International Conference on Material Forming, ESAFORM 2019*, Vitoria-Gasteiz, Spain, May 8-10

47. B.K. Roy, **Y.P. Korkolis**, Y. Arai, W. Araki, T. Iijima and J. Kouyama, "Experiments and simulation of shape and thickness evolution in multi pass tube spinning", *The 11th International Conference and Workshop on Numerical Simulation of 3D Sheet Metal Forming Processes, NUMISHEET 2018*, Tokyo, Japan, July 30-Aug. 3

46. J. Ha, Y. Choi, C. Dunn, M.-G. Lee and **Y.P. Korkolis**, "Formability prediction in hole-expansion test for AA7075 sheet in –W temper", *SAE 2019 World Congress & Exhibition*,

Detroit, MI, Apr. 9-11, 2019

45. T. Hama, T. Sakai, **Y.P. Korkolis** and H. Takuda, "Crystal-plasticity finite-element simulation of time-dependent springback in a CP-Ti sheet", *The 11th International Conference and Workshop on Numerical Simulation of 3D Sheet Metal Forming Processes, NUMISHEET 2018*, Tokyo, Japan, July 30-Aug. 3

44. P. Knysh, K. Sasaki, T. Furushima, M. Knezevic and **Y.P. Korkolis**, "Deformation-induced surface roughening of an Al-Mg alloy", *The 11th International Conference and Workshop on Numerical Simulation of 3D Sheet Metal Forming Processes, NUMISHEET 2018*, Tokyo, Japan, July 30-Aug. 3

43. J. Ha, M. Baral and **Y.P. Korkolis**, "Ductile fracture of AA6111 alloy including the effect of bake-hardening". *Kwansoo Chung Memorial Symposium, The 11th International Conference and Workshop on Numerical Simulation of 3D Sheet Metal Forming Processes, NUMISHEET 2018*, Tokyo, Japan, July 30-Aug. 3

42. B.R. Mitchell, J. Klewicki, G. Shwaery, **Y.P. Korkolis**, and B.L. Kinsey, "On the comparison between a liquid jet and a droplet train", *Proceedings of the ASME 2018 International Manufacturing Science and Engineering Conference, MSEC*, College Station, TX, Jun. 18-22, 2018

41. **Y.P. Korkolis**, B.R. Mitchell, M.R. Locke, S. Mates and B.L. Kinsey, "Effect of Strain-Rate on the Plastic Anisotropy of a Low-Carbon Steel", *Annual Conference and Exposition on Experimental and Applied Mechanics*, Greenville, SC, June 4–7, 2018

40. C. Poulin, **Y.P. Korkolis**, B.L. Kinsey and M. Knezevic, "Formability Improvements of DP 1180 Subjected to Continuous-Bending-Under-Tension (CBT)", *37th International Deep-Drawing Research Group Conference – IDDRG*, Waterloo, Canada, June 3-7, 2018

39. T. Maeda, N. Noma, T. Kuwabara, F. Barlat and **Y.P. Korkolis**, "Experimental Verification of the Tension-Compression Asymmetry of the Flow Stresses of a High Strength Steel Sheet", *International Conference on the Technology of Plasticity ICTP 2017*, Cambridge, UK, 17-22 Sept. 2017

38. T.J. Barrett, B.L. Kinsey , M. Knezevic and **Y.P. Korkolis**, "Numerical and experimental investigation of formability enhancement during continuous-bending-under-tension (CBT) of AA6022-T4", *International Conference on the Technology of Plasticity ICTP 2017*, Cambridge, UK, 17-22 Sept. 2017

37. J. Ha, M. Baral and **Y.P. Korkolis**, "Ductile fracture of an Al-Si-Mg die-casting aluminum alloy", *International Conference on the Technology of Plasticity ICTP 2017*, Cambridge, UK, 17-22 Sept. 2017

36. N. Deng and **Y.P. Korkolis**, "Elastic anisotropy of dual-phase steels and its implications for springback", *The 174th Meeting of the Iron and Steel Institute of Japan*, Sapporo, Japan, Sept. 6-8, 2017

35. **Y.P. Korkolis**, F. Barlat and T. Kuwabara, "Simplified representations of multiaxial test results in plasticity", *5th International Conference on Material Modeling, ICMM 5*, Rome, Italy, June 14-16, 2017

34. B.R. Mitchell, T.E. Bate, J.C. Klewicki, **Y.P. Korkolis** and B.L. Kinsey, "Experimental investigation of droplet impact on metal surfaces in reduced ambient pressure", *45th North American Manufacturing Research Conference NAMRC*, Los Angeles, CA, USA, June 4-8, 2017

33. E.M. Momanyi, T.J. Roemer, B.L. Kinsey and **Y.P. Korkolis**, "Experimental investigation of key process parameters during continuous-bending-under-tension of AA6022-T4", *12th International Manufacturing Science and Engineering Conference, MSEC 2017*, Los Angeles, CA, USA, June 4-8, 2017

32. **Y.P. Korkolis**, B. Brownell, S. Coppieters and H. Tian, "Modelling of hole-expansion of AA6022-T4 aluminum sheets with anisotropic non-quadratic yield functions", *2016 NUMISHEET*, Bristol, UK, 4-9 Sept. 2016

31. **Y.P. Korkolis**, P.W. Ripley and P. Knysh, "Failure of an austenitic stainless steel under linear and non-linear loading paths", *XXIV ICTAM*, Montreal, Canada, 21-26 Aug. 2016

30. M. Kronis, V. Kubec and **Y.P. Korkolis**, "Hydroforming of extruded and fully-annealed 6061 aluminum tubes: experiments and analysis", *12th NUMIFORM*, Troyes, France, July 4-7, 2016

29. B.R. Mitchell, A. Nassiri, M.R. Locke, J.C. Klewicki, **Y.P. Korkolis** and B.L. Kinsey, "Experimental and numerical framework for study of low velocity water droplet impact dynamics", *2016 ASME International Manufacturing Science and Engineering Conference MSEC*, Blacksburg, Virginia, June 27 – July 1, 2016

28. T. Roemer, **Y.P. Korkolis** and B.L. Kinsey, "Design of a continuous-bending-under-tension machine and initial experiments on Al-6022-T4" *2015 ASME International Conference on Manufacturing Science and Engineering MSEC*, Charlotte, North Carolina, June 8-12, 2015

27. J.C. Benedyk, B.L. Kinsey and **Y.P. Korkolis**, "Fundamental studies of continuous-bending-under-tension (CBT) and potential automotive forming applications", *Aluminum Two Thousand & ICEB 2015,* Florence, Italy, May 12-16, 2015

26. P.W. Ripley and **Y.P. Korkolis**, "Custom testing machine for biaxial loading of microtubes", *Int'l Conf. on MicroManufacturing ICOMM,* Milano, Italy, Mar. 31-Apr 2, 2015

25. C.P. Dick and **Y.P. Korkolis**, "Assessment of the anisotropy of extruded tubes by the Ring Hoop Tension Test", *11th International Conference on Technology of Plasticity ICTP,* Nagoya, Japan, Oct. 19-24, 2014

24. C.P. Dick and **Y.P. Korkolis**, "An investigation of the ring hoop tension test for anisotropic tubes", *2014 ASME International Conference on Manufacturing Science and Engineering*, Detroit, Michigan, June 9-13, 2014

23. C.N. Nikhare, B.L. Kinsey and **Y.P. Korkolis**, "Formability enhancement in Titanium tube flaring by controlling the strain-path", *2014 ASME International Conference on Manufacturing Science and Engineering*, Detroit, Michigan, June 9-13, 2014

22. **Y.P. Korkolis** and N. Deng, "Springback predictions for pure bending of DP 590 steel using non-linear kinematic hardening calibrated from tension-compression experiments", *SAE World Congress,* Detroit, MI, Apr. 8-10, 2014

21. N. Deng and **Y.P. Korkolis**, "Cruciform specimen design and validation for constitutive identification of sheet metal", 2014 NUMISHEET, Melbourne, Australia, Jan. 6-10, 2014

20. **Y.P. Korkolis**, N. Deng and T. Kuwabara, "Biaxial unloading and springback behavior of dual-phase DP590 steel using cruciform specimens and nonlinear kinematic hardening", 2014 NUMISHEET, Melbourne, Australia, Jan. 6-10, 2014

19. **Y.P. Korkolis** and S. Kyriakides, "Stress-triaxiality effects in the modeling of tube hydroforming", 6th *International Conference on Tube Hydroforming*, Jeju Island, Korea, Aug. 26-28, 2013

18. W. Cullen and **Y.P. Korkolis**, "Ductility enhancement in pulsed uniaxial tension of 304 stainless steel: experiments and analysis", *11th NUMIFORM*, Shenyang, China, July 6-10, 2013

17. Wilson, J.F., Kinsey, B.L. and **Y.P. Korkolis**, "Development of a biaxial loading frame for sheet metal", *41st North American Manufacturing Research Conference (NAMRC)*, Madison, Wisconsin, June 10-13, 2013

16. **Y.P. Korkolis**, N. Deng and T. Kuwabara, "Experimental investigation of the biaxial unloading behavior of DP 590 steel sheets for springback analysis", *2013 ASME International Conference on Manufacturing Science and Engineering*, Madison, Wisconsin, June 10-13, 2013

15. C. Nikhare, **Y.P. Korkolis** and B.L Kinsey, "A numerical analysis of the re-strike process on 2008-T4 aluminum alloy square pan", *2012 International Deep Drawing Research Group Conference*, Mumbai, India, Nov. 2012

14. C. Nikhare, **Y.P. Korkolis** and B.L Kinsey, "Numerical Investigation of Residual Formability and Deformation Localization during Continuous-Bending-Under-Tension" *2012 ASME International Conference on Manufacturing Science and Engineering*, Notre Dame, Indiana, June 4-8, 2012

13. G.W. Cullen and **Y.P. Korkolis**, "Ductility of SS 304 under pulsed loading" *International Symposium on Plasticity and its Current Applications*, Puerto Rico, Jan. 3-8, 2012

12. G.W. Cullen and **Y.P. Korkolis**, "Modeling of the pulsed uniaxial loading of SS 304 including deformation-induced heating", *5th International Conference on Tube Hydroforming*, Noboribetsu, Japan, July 24-27, 2011

11. L. Wang, B.L. Kinsey and **Y.P. Korkolis**, "Investigation of strain gradients and magnitudes during microbending", *2011 ASME International Conference on Manufacturing Science and Engineering*, Corvallis, Oregon, June 13-17, 2011

10. T. Giagmouris, S. Kyriakides, **Y.P. Korkolis**, L.-H. Lee, "Localization and failure of aluminum shells under combined bending and tension", *International Symposium on Plasticity and its Current Applications*, Puerto Vallarta, Jan. 3-8, 2011

9. G.W. Cullen and **Y.P. Korkolis**, "The effect of deformation-induced heating on the ductility enhancement during the pulsed loading of stainless steel 304", *International Symposium on Plasticity and its Current Applications*, Puerto Vallarta, Jan. 3-8, 2011

8. A. Kaplan and **Y.P. Korkolis**, "Design & fabrication of a laboratory tube hydroforming machine", *2010 ASME International Conference on Manufacturing Science and Engineering*, Erie, Pennsylvania, Oct. 12-15, 2010

7. G.W. Cullen and **Y.P. Korkolis**, "Ductility enhancement in pulsed uniaxial tension of stainless steel 304", *2010 ASME International Conference on Manufacturing Science and Engineering*, Erie, Pennsylvania, Oct. 12-15, 2010

6. **Y.P. Korkolis** and S. Kyriakides, "3-D and anisotropic effects on the prediction of burst in aluminum tube hydroforming", *10th NUMIFORM*, Pohang, Korea, June 13-17, 2010

5. **Y.P. Korkolis** and S. Kyriakides, "On the prediction of burst in aluminum tube hydroforming", *International Symposium on Plasticity and its Current Applications*, St. Kitts, Jan. 3-8, 2010

4. **Y.P. Korkolis** and S. Kyriakides, "Prediction of burst in aluminum tube hydroforming using non-quadratic yield functions", *2009 International Deep Drawing Research Group Conference*, Golden, Colorado, June 1-3, 2009

3. **Y.P. Korkolis** and S. Kyriakides, "Forming limits of anisotropic aluminum tubes, considering linear and non-linear loading paths", *International Symposium on Plasticity and its Current Applications*, St. Thomas, U.S Virgin Islands, Jan. 3-8, 2009

2. **Y.P. Korkolis** and S. Kyriakides, "Formability of anisotropic aluminum tubes", *2008 ASME International Conference on Manufacturing Science and Engineering*, Chicago, Illinois, Oct. 7-10, 2008

1. **Y.P. Korkolis** and S. Kyriakides, "Inflation and burst of anisotropic aluminum tubes for hydroforming applications, including deformation-induced anisotropy", *International Symposium on Plasticity and its Current Applications*, Kona, Hawaii, Jan. 3-8, 2008

CONFERENCE PROCEEDINGS (OTHER) / PRESENTATIONS / POSTERS

60. K. Chen and **Y.P. Korkolis**, "Elastic buckling of a column restrained by a constant concentrated force", *ASME International Mechanical Engineering Congress & Exposition*, Portland, Oregon, Nov. 15 – 19, 2020

59. K. Chen and **Y.P. Korkolis**, "Instability of a two-bar system under constant lateral restraint", *Society of Engineering Science (SES) 57th Annual Technical Meeting*, Minneapolis, MN, Sept 28-30, 2020

58. J. Ha and **Y.P. Korkolis**, "Modeling of hole-expansion of prestrained sheets using distortional hardening", *TMS 2020 149th Annual Meeting & Exhibition*, San Diego, CA, Feb. 23-27

57. **Y.P. Korkolis**, J. Ha and M. Baral, "Ductile fracture of an aluminum alloy sheet under proportional loading", *Int'l Conf. on Plasticity, Damage and Fracture*, Rivera Maya, Mexico, Jan. 3-9

56. P. Knysh, K. Sasaki, T. Furushima, M. Knezevic and **Y.P. Korkolis**, "A shape interpolation procedure: application to creating explicit grain structure models based on partial data sets", *Second international scientific-technical conference to memory of the academician*

V.I. Mossakovskii (to 100-th anniversary of his birthday) «The Problems of Continuous Mechanics and Strength of Constructions», Dnipro, Ukraine, Oct 10-12, 2019

55. **Y.P. Korkolis** and J. Ha, "Cup drawing using a 3D servopress", *EWI Forming Center Workshop: Advanced Sheet Metal Forming Technology*, Columbus, Ohio, Oct 9, 2019

54. B.L. Kinsey, T. Barrett, C.M. Poulin, **Y.P. Korkolis** and M. Knezevic, "Continuous-bending-under-tension to increase elongation to fracture, characterize material at large strains, and manipulate microstructure", *Forming Technology Forum FTF 2019,* Hersching, Germany, Sept. 19-20

53. M. Baral and **Y.P. Korkolis**, "Plasticity of commercially-pure titanium: experiments and modeling", *The 1st ISIJ International Symposium on Advanced Material Modeling and Processing of Steel Sheets*, Okayama, Japan, Sept. 10, 2019

52. P. Knysh, K. Sasaki, T. Furushima, M. Knezevic and **Y.P. Korkolis**, "Crystal plasticity analysis of deformation-induced surface roughening", *Asia-Pacific Society for Technology of Plasticity,* Tokyo, Japan, Aug 1, 2019

51. J. Ha, M. Baral and **Y.P. Korkolis**, "Ductile fracture of automotive aluminum sheets using a new cruciform-like specimen", *Spring Meeting of North American Deep-Drawing Research Group*, Plymouth, MI, May 16, 2019

50. J. Ha, Y. Choi, C. Dunn, M.-G. Lee and **Y.P. Korkolis**, "Formability prediction in hole-expansion of AA7075 sheet in –W temper", *SAE 2019 World Congress & Exhibition*, Detroit, MI, Apr. 9-11, 2019

49. J. Ha, M. Baral and **Y.P. Korkolis**, "Ductile fracture study of a bake-hardened aluminum alloy using a new, cruciform-like specimen", Int'l Seminar on Recent Advancements in Material Testing, Modeling and Simulation for Sheet Metal Forming, Tokyo Univ. Agriculture & Technology, Jan 29, 2019

48. J. Ha, D. Moritz, C. Dunn and **Y.P. Korkolis**, "Prestraining effect on hole-expansion behavior of AA6022-T4 sheet to replicate multi-step forming processes", 2nd Materials Chain Int'l Conf. – MCIC 2018, Bochum, Germany, Nov. 12-14-2018 (poster)

47. B.L Kinsey, N. Kirsch, M. Baral and **Y.P. Korkolis**, "Acoustic sensor to monitor forming process", Workshop on Smart Factories: Revolutionizing Manufacturing through Industry 4.0, Durham, NH, Oct. 18, 2018

46. **Y.P. Korkolis**, "Failure of automotive aluminum sheets during forming – a collection of recent work", EWI Forming Center Workshop: Advanced Sheet Metal Forming Technology, Columbus, OH, Oct. 10, 2018

45. M. Baral, J. Ha and **Y.P. Korkolis**, "Ductile fracture behavior of anisotropic AA6111-T4 aluminum sheet", NEW.Mech 2018, Providence, RI, Sept. 29, 2018

44. C. Poulin, T.J. Roemer, M. Knezevic, B.L. Kinsey and **Y.P. Korkolis**, "Stable tensile deformation to large strains by continuous-bending-under-tension (CBT)", *18th U.S. National Conference on Theoretical and Applied Mechanics*, Chicago, IL, June 4-9, 2018

43. J. Ha, M. Baral and **Y.P. Korkolis**, "Ductile fracture experiments and modeling of 6000 series aluminum sheet", *2018 SAE World Congress,* Detroit, MI, Apr. 10-12

42. K. Sasaki, K. Kakehi, **Y.P. Korkolis** and T. Furushima, "Investigation of Deformation-induced Surface Roughening based on Microstructure Analysis in Polycrystalline Metal Sheets", *The 10th Asian Workshop on Micro/Nano Forming Technology, AWMFT2017*, Oct 15-17, 2017, Pohang, South Korea

41. M. Baral and **Y.P. Korkolis**, "Plastic Anisotropy and Constitutive Modeling of CP-Ti", *NEW.Mech 2017, MIT,* Boston, MA, Oct. 14, 2017

40. J. Ha, M. Baral and **Y.P. Korkolis**, "Ductile fracture experiments and modeling of 6013 aluminum sheet", *NEW.Mech 2017, MIT,* Boston, MA, Oct. 14, 2017

39. P. Knysh, K. Sasaki, T. Furushima, M. Knezevic and **Y.P. Korkolis**, "Deformation-induced surface roughening of an Al-Mg alloy", *NEW.Mech 2017, MIT,* Boston, MA, Oct. 14, 2017

38. **Y.P. Korkolis**, B. Brownell and B.L. Kinsey, "Hole-expansion of AA6022-T4: improved failure predictions using anisotropic yield functions", 67th CIRP General Assembly, Lugano, Switzerland, Aug. 20-26, 2017

37. K. Sasaki, T. Furushima, H. Morishita, K. Manabe and **Y. P. Korkolis**, "Effect of microstructure on free surface roughening behavior of polycrystalline metal sheets in micro uniaxial tensile test", Poster at the *2017 International Conference on Materials & Processing ICM&P*, Los Angeles, June 4-8, 2017

36. J. Ha, M. Baral and **Y.P. Korkolis**, "Ductile fracture experiments and modeling of 6000 series of aluminum sheet", *2017 NADDRG Spring Symposium*, Plymouth, MI, May 18, 2017

35. N. Deng and **Y.P. Korkolis**, "Elastic and plastic anisotropy of mild and advanced high strength steel sheets", *SAE World Congress,* Detroit, MI, Apr. 4-6, 2017

34. **Y.P. Korkolis**, "Ductility enhancement during continuous-bending-under-tension (CBT) of AA6022-T4", *Tokyo Univ. of Agriculture & Technology Research Symposium: Material Modeling and Testing for Advanced Sheet Metal Forming Simulations*, Koganei, Tokyo, Feb. 20, 2017

33. **Y.P. Korkolis**, "Plane stress fracture prediction for aluminum and high strength steel sheets using digital image correlation", *NIST AMTech Sheet Metal Forming Roadmap Second Workshop,* Durham, NH, Oct. 27-28, 2016

32. P. Knysh and **Y.P. Korkolis**, "Identification of post-necking hardening response of rate and temperature dependent metals", *NEW.Mech 2016, Harvard U.*, Boston, MA, Oct. 22, 2016

31. E.M. Momanyi, B.L. Kinsey and **Y.P. Korkolis**, "Necking suppression by Continuous-Bending-Under-Tension (CBT) of metal strips", *NEW.Mech 2016, Harvard U.*, Boston, MA, Oct. 22, 2016

30. **Y.P. Korkolis**, "Material characterization for metal forming simulations", *FORMing the Future Workshop*, Durham, NH, May 25, 2016

29. N. Deng and **Y.P. Korkolis**, "Elastic and Plastic Anisotropy of DQSK and Dual Phase Steels", *2016 NADDRG Spring Meeting*, Plymouth MI, May 12, 2016

28. P.W. Ripley and **Y.P. Korkolis**, "Inflation of stainless steel 304L microtubes under axial

tension and internal pressure to assess the plastic anisotropy", *TMS 2016 145th Annual Meeting & Exhibition*, Feb. 14 – 18, 2016, Nashville, TN

27. N. Deng, I. Gagnon, V. Kubec, B.L. Kinsey and **Y.P. Korkolis** "Biaxial loading of anisotropic Al-6022-T4 sheets using cruciform specimens", *TMS 2016 145th Annual Meeting & Exhibition*, Feb. 14 – 18, 2016, Nashville, TN

26. **Y.P. Korkolis**, "Elastic and plastic anisotropy of dual-phase steels", *International Seminar on Advanced Material Processing and Material Modeling for Steel,* Tokyo Univ. of Agric. and Technology, Jan. 25, 2016 (participation by invitation only)

25. **Y.P. Korkolis**, P.W. Ripley and P. Knysh, "Constitutive modeling and failure predictions of SS-304L microtubes" ", *International Symposium on Plasticity and its Current Applications*, Kona, Hawaii, Jan. 3-9, 2015

24. B.L. Kinsey and **Y.P. Korkolis**, "Digital Image Correlation to Measure Strain during Deformation Processes across Various Length Scales", *1st International Digital Image Correlation Society Conference & Workshop 2015*, Columbia, SC, Nov 3-5, 2015

23. P. Knysh and **Y.P. Korkolis**, "Explicit Method for Determining the Inelastic Heat Fraction (IHF) of Metals", *NEW.Mech 2015, Boston U.,* Boston, MA, Oct 10, 2015

22. C.P. Dick and **Y.P. Korkolis**, "Plastic anisotropy of extruded aluminum tubes measured with the Ring Plane-Strain Tension test", *2015 ASME Applied Mechanics and Materials Conference McMAT*, Seattle, Wash., June 29-July 1, 2015

21. T.J. Roemer, B.L. Kinsey and **Y.P. Korkolis**, "Continuous-bending-under-tension to enhance the formability of sheet metal", Poster at *2015 ASME International Conference on Manufacturing Science and Engineering MSEC*, Charlotte, North Carolina, Jun. 8-12, 2015

20. **Y.P. Korkolis**, M. Baral, H. Tian, B.J. Brownell and B.L. Kinsey, "Hole expansion of anisotropic Al-6022-T4 sheets", *2015 NADDRG Spring Meeting,* Evanston, Ill., May 5, 2015

19. P. Knysh and **Y.P. Korkolis**, "Necking of pressurized tubes of 304L stainless steel under tension", *IUTAM Symposium: Ductile Fracture and Localization*, Paris, Mar. 17-20, 2015 (participation by invitation only)

18. B.L. Kinsey and **Y.P. Korkolis**, "Materials Forming research at UNH", Presentation at the UNH ASME Student Chapter, Mar 10, 2015

17. **Y.P. Korkolis**, N. Deng and T. Kuwabara, "Biaxial loading-unloading behavior of a dual-phase steel probed with cruciform specimens", *International Symposium on Plasticity and its Current Applications*, Jamaica, Jan. 4-9, 2015

16. C.P. Dick and **Y.P. Korkolis**, "The Ring Hoop Tension and Ring Plane-Strain Tension tests for measuring the anisotropy of extruded tubes", *International Symposium on Plasticity and its Current Applications*, Jamaica, Jan. 4-9, 2015

15. **Y.P. Korkolis**, T. Roemer and B.L. Kinsey, "Identification of the post-uniform material hardening curve using the continuous-bending-under-tension experiment", *AmeriMech Symposium: Material Property Identification*, Dec 10-12, 2014, UT-Austin (participation by invitation only)

14. **Y.P. Korkolis**, P. Ripley, P. Knysh and Y. Li, "Necking instabilities of pressurized thin-walled microtubes under tension", *2014 ASME International Mechanical Engineering Conference and Exposition - IMECE*, Montreal, Quebec, Nov. 14-20, 2014

13. B.L. Kinsey and **Y.P. Korkolis**, "Materials Forming research at UNH", Presentation at the UNH ASME Student Chapter, Nov 7, 2013

12. N. Deng and **Y.P. Korkolis**, "Experiments and modeling of continuous tension-compression of thin sheets", *NEW.Mech 2013, Northeastern U.*, Boston, MA, Oct 12 2013

11. **Y.P. Korkolis**, N. Deng and T. Kuwabara, "Biaxial loading-unloading behavior of DP590 probed with cruciform specimens, for springback analyses in sheet metal forming", *2013 NADDRG Spring Meeting,* Gaithersburg, MD, May 22, 2013

10. **Y.P. Korkolis**, A.R. Kaplan, C.P. Dick and B.L. Kinsey, "Formability assessment of Al-6xxx-T4 tubes for hydroforming applications", *SAE World Congress,* Detroit, MI, Apr 16-18, 2013

9. G.W. Cullen and **Y.P. Korkolis**, "Ductility of stainless steel 304 under pulsed loading", *NEW.Mech 2012, Brown U.,* Providence, RI, Nov 3 2012

8. G.W. Cullen and **Y.P. Korkolis**, "Ductility of stainless steel 304 under pulsed loading", Poster at *NEW.Mech 2011, M.I.T*, Boston, MA, Oct 1 2011

7. **Y.P. Korkolis**, "Ductility of stainless steel 304 under pulsed loading", *Advances in Solid and Structural Mechanics, A symposium in celebration of the 60th Birthdays of Stelios Kyriakides and Kenneth M. Liechti*, Austin, Texas, May 13-14, 2011

6. B.L. Kinsey, E. Bell, J.S. Daniel, **Y.P. Korkolis**, and T.S. Gross, "MRI: Acquisition of a Digital Imaging Correlation System to Advance Research, Training and Education in Engineering" (paper & poster), *NSF CMMI Research and Innovation Conference*, Atlanta, Georgia, Jan. 4-7, 2011

5. **Y.P. Korkolis**, B.L. Kinsey, G.W. Cullen, A. Kaplan and E. Chu, "GOALI: Fundamental studies and modeling of pulsed tube hydroforming" (paper & poster), *NSF CMMI Research and Innovation Conference*, Atlanta, Georgia, Jan. 4-7, 2011

4. T. Giagmouris, S. Kyriakides, **Y.P. Korkolis** and L.-H. Lee, "On the localization and failure in aluminum shells due to crushing-induced bending and tension", *2010 ASME International Mechanical Engineering Conference and Exposition - IMECE*, Vancouver, British Columbia, Nov. 12-18, 2010

3. **Y.P. Korkolis** and S. Kyriakides, "Experimental and analytical study of tube hydroforming for aluminum automotive components" (poster), *GAIN 08 Conference*, Austin, Texas, Feb. 13, 2008

2. **Y.P. Korkolis** and S. Kyriakides, "Hydroforming of aluminum tubes for automotive applications" (poster), *NSF CMMI Engineering Research and Innovation Conference*, Knoxville, Tennessee, Jan. 7-10, 2008

1. **Y.P. Korkolis** and S. Kyriakides, "Inflation and burst of anisotropic aluminum tubes for hydroforming applications", *2007 ASME Applied Mechanics and Materials Conference McMAT*, Austin, Texas, June 3-7, 2007

INVITED TALKS

27. **Y.P. Korkolis**, "Ductile fracture of an aluminum alloy using a new cruciform-like specimen", *Seminar at the Institute of Industrial Science, University of Tokyo*, Tokyo, Japan, July 29, 2019

26. **Y.P. Korkolis**, "Ductility enhancement during continuous-bending-under-tension", *Invited seminar at Seoul National University*, Seoul, Korea, May 18, 2018

25. **Y.P. Korkolis**, "Ductility enhancement during continuous-bending-under-tension", *Invited seminar at POSTECH*, Pohang, Korea, May 17, 2018

24. **Y.P. Korkolis**, "Ductility enhancement during continuous-bending-under-tension", *Invited seminar at KAIST*, Daejeon, Korea, May 14, 2018

23. **Y.P. Korkolis**, "Elastic anisotropy of Advanced High-Strength Steel", *Invited talk at the Tata Steel R&D,* IJmuiden, The Netherlands, Oct 17, 2017

22. **Y.P. Korkolis**, "Elastic anisotropy of Advanced High-Strength Steel", *Invited talk at the Steel Research Lab, JFE Steel,* Chiba, Japan, Sep 5, 2017

21. **Y.P. Korkolis**, "Ductility enhancement of AA6022-T4 during continuous-bending-under-tension (CBT)", *Invited talk at Hiroshima University,* Hiroshima, Japan, June 23, 2017

20. **Y.P. Korkolis**, "Ductility enhancement of 304 stainless steel under pulsed loading", *Invited talk at Kyoto University,* Kyoto, Japan, Jun 20, 2017

19. **Y.P. Korkolis**, "Materials forming research at UNH", *Invited talk at Shizuoka University,* Hamamatsu, Japan, May 18, 2017

18. **Y.P. Korkolis**, "Materials forming research at UNH", *Invited talk at the Institute of Physical and Chemical Research (RIKEN),* Wako, Japan, May 17, 2017

17. **Y.P. Korkolis**, "Ductility enhancement of AA6022-T4 during continuous-bending-under-tension (CBT)", *Invited talk at the National Institute of Materials Science*, Tsukuba, Japan, Feb 23, 2017

16. **Y.P. Korkolis**, "Ductility enhancement of 304 stainless steel under pulsed loading", *Invited talk at Saitama University,* Japan, Feb 22, 2017

15. **Y.P. Korkolis**, "Biaxial loading-unloading of DP590 steel probed with cruciform specimens: experiments and analysis", *Invited talk at the Toyota Central R&D Labs,* Nagoya, Japan, Jan. 25, 2016

14. **Y.P. Korkolis**, "Biaxial loading-unloading of DP590 steel probed with cruciform specimens: experiments and analysis", *Invited talk at the University of Michigan*, Jan. 19, 2016

13. **Y.P. Korkolis**, "Ductility enhancement of 304 stainless steel under pulsed loading: experiments and analysis", *Invited talk at the University of Hawaii at Manoa*, Jan. 14, 2016

12. **Y.P. Korkolis**, "Biaxial loading-unloading behavior of DP590 steel probed with cruciform specimens", *Invited talk at Korea University*, Seoul, Aug. 26, 2015

11. **Y.P. Korkolis**, "Ductility enhancement of 304 stainless steel under pulsed loading: experiments and analysis", *Invited talk at POSCO Technical Center*, Songdo, Korea, Aug. 25, 2015

10. **Y.P. Korkolis**, "Ductility enhancement of 304 stainless steel under pulsed loading: experiments and analysis", *Invited talk at Pusan National University*, Korea, Aug. 20, 2015

9. **Y.P. Korkolis**, "Biaxial loading-unloading behavior of DP590 steel probed with cruciform specimens", *Invited talk at the Technical University of Dortmund*, Mar. 25, 2015

8. **Y.P. Korkolis**, "Biaxial loading-unloading behavior of a dual-phase steel probed with cruciform specimens", *Invited talk at The University of Texas at Austin*, May 2, 2014

7. **Y.P. Korkolis**, "Biaxial loading-unloading behavior of DP590 steel probed with cruciform specimens", *Presentation at the General Motors Technical Center*, Warren, MI, Apr. 10, 2014

6. **Y.P. Korkolis**, "Biaxial unloading of dual-phase DP590 steel sheet", *Presentation at the Japanese Society for Technology of Plasticity Young Investigator Forum – Kansai Region*, Osaka, Japan, Mar. 14, 2014

5. **Y.P. Korkolis**, "Ductility enhancement of 304 stainless steel under pulsed loading: experiments and analysis", *Invited talk at the Harbin Institute of Technology,* Harbin, P.R. China, July 11, 2013

4. **Y.P. Korkolis**, "Ductility enhancement of 304 stainless steel under pulsed loading: experiments and analysis", *Invited talk at the Naval Research Lab*, Washington, DC, May 20, 2013

3. **Y.P. Korkolis**, "Formability and hydroforming of anisotropic aluminum tubes", *Invited talk at the Fachhochschule Köln*, Cologne, Germany, Mar. 16, 2011

2. **Y.P. Korkolis**, "Ductility enhancement under pulsed loading of stainless steel 304", *Invited talk at the Universiteit Twente*, Enschede, The Netherlands, Mar. 14, 2011

1. **Y.P. Korkolis,** "Formability and hydroforming of anisotropic Al-6260-T4 tubes", *Invited talk at the Pacific Northwest National Lab*, Richland, Washington, Nov. 17, 2010

INTERNAL REPORTS AND REPORTS TO SPONSORS

12. M. Baral and **Y.P. Korkolis**, "Plastic anisotropy of Commercially-Pure Titanium – Final (8^{th}) project report", Report #5-15, March 2015 – Report to sponsor

11. M. Baral and **Y.P. Korkolis**, "Plastic anisotropy of Commercially-Pure Titanium – 7^{th} project report", Report #4-15, March 2015 – Report to sponsor

10. M. Baral and **Y.P. Korkolis**, "Plastic anisotropy of Commercially-Pure Titanium – 6^{th} project report", Report #3-15, March 2015 – Report to sponsor

9. M. Baral and **Y.P. Korkolis**, "Plastic anisotropy of Commercially-Pure Titanium – 5^{th} project report", Report #2-15, February 2015 – Report to sponsor

8. M. Baral and **Y.P. Korkolis**, "Plastic anisotropy of Commercially-Pure Titanium – 4^{th} project report", Report #1-15, January 2015 – Report to sponsor

7. M. Baral and **Y.P. Korkolis**, "Plastic anisotropy of Commercially-Pure Titanium – 3rd project report", Report #4-14, October 2014 – Report to sponsor
6. M. Baral and **Y.P. Korkolis**, "Plastic anisotropy of Commercially-Pure Titanium – 2nd project report", Report #3-14, August 2014 – Report to sponsor
5. N. Deng and **Y.P. Korkolis**, "Elastic and plastic anisotropy of a mild and a dual-phase steel", Report #2-14, May 2014 – Report to sponsor
4. **Y.P. Korkolis** and M. Baral, "Plastic anisotropy of Commercially-Pure Titanium – 1st project report", Report #1-14, April 2014 – Report to sponsor
3. **Y.P. Korkolis** and M. Baral, "Ductile damage modeling of Commercially-Pure Titanium – Interim project report", Report #2-13, October 2013 – Report to sponsor
2. N. Deng and **Y.P. Korkolis**, "Procedure for measuring Young's Modulus and Poisson's ratio using strain gages", Report #1-13, March 2013 – Internal report
1. N. Deng and **Y.P. Korkolis**, "Finite element modeling of tube crushing and re-inflation", Report #1-12, February 2012 – Internal report

Approximately 12 other written reports to sponsors since 2015

FUNDED RESEARCH AWARDS

Where I am/was the Principal Investigator:

#	Agency & proposal number	Proposal Title	Co-PI(s)	Dura-tion	Budget		
					As-awarded	Final (after suppl.)	My share
1	NSF CMMI – 1031169	GOALI: Fundamental Studies and Modeling of Pulsed Tube Hydroforming	B. Kinsey (UNH), E. Chu (Alcoa)	9/10-3/15	359,785	432,101	388,891 (9/10th of total)
2	NSF CMMI – 1150523	CAREER: Innovations in Microscale Plasticity and Failure Mechanics to Enable Microforming Processes, with Bending and Hydroforming as Paradigms	-	2/12-1/17	400,000	425,000	425,000
3	Dept. of Commerce	NIST Summer Undergraduate Research Fellowship for Mr. Newell Moser	-	6/12-8/12	8,851	8,851	8,851
4	Ford Motor Company	Gift towards the Continuous-Bending-Under-Tension Project	-	Spr. 13	10,000	10,000	10,000
5	Naval Research Lab/Excet,	Experimental Assessment and Mathematical Modeling	-	9/13-3/15	78,292	78,292	78,292

	Inc.	of Plastic Anisotropy of Commercially Pure Titanium					
6	Auto/Steel Partnership	Measurement and Modeling of Elastic and Plastic Anisotropy of AHSS of Ferritic-Martensitic Steels	M. Knezevic (UNH)	8/14-12/14	90,710	90,710	68,033 (3/4th of total)
7	UNH CAMMI	Acquisition of a 5 MPixel camera for Digital Image Correlation	-	11/15	3,300	3,300	3,300
8	UNH CAMMI	Creation of a sheet tension-compression testing machine	-	11/15	20,000	20,000	20,000
9	Industrial sponsor	Ductile fracture testing for 6 aluminum alloys	-	3/16-7/16	81,900	81,900	81,900
10	NSF CMMI	Multiaxial Distortional-Hardening Plasticity to Advance Forming Process Modeling (U.S-Korea Adv. Manuf.)	-	6/16-5/19	349,920	362,920	362,920
11	UNH VP of Research	A Wireless Acoustic Emission Sensor for Sheet Metal Forming in an Industry 4.0 Environment	B. Kinsey (UNH), N. Kirsch (UNH)	6/17-5/18	25,000	25,000	8,333 (1/3rd of total)
12	Thyssen-Krupp NA	Material testing of 2 steels	B. Kinsey (UNH)	1/18-6/18	35,000	35,000	17,500 (1/2nd of total)
					TOTAL:	**1,573,074**	**1,473,020**

Where I am/was a co-Principal Investigator:

c	**Agency & proposal number**	**Proposal Title**	**PI and co-PI(s)**	**Dura-tion**	**Budget**		
					As-awarded	**Final (after suppl.)**	**My share**
1	NSF CMMI – 1301081	GOALI: Continuous-Bending-under-Tension Studies to Enhance the Formability of Advanced Steels and Aluminum Alloys	PI: B. Kinsey (UNH), other co-PIs: M. Knezevic (UNH), C. Xia (Ford)	6/13-6/16	442,680	487,680	162,560 (1/3rd of total)

2	NSF CMMI – 1337897	MRI: Acquisition of Analytical Scanning Electron Microscope for Engineering and Earth Science Research	PI: Todd Gross other co-PIs: B. Kinsey, S. Mukasa, M. Knezevic	9/13-8/15	683,558	683,558	136,712 (1/5th of total)
3	NSF CMMI – 1462993	GOALI: Fundamental Studies and Modeling of High Impact Pressure, Supersonic Water Droplets (HIP-SWaD) for Material Deformation and Removal	PI: B. Kinsey other co-PI: J. Klewicki	3/15-2/18	300,000	331,000	110,333 (1/3rd of total)
4	UNH VP of Research	Center for Advanced Materials and Manufacturing Innovations (CAMMI)	PIs: B. Kinsey and J. Tsavalas other co-PIs: E. Berda T. Gross D. Lashmore G. Miller X. Teng	6/15-5/20	1,315,000	1,315,000	164,375 (1/8th of total)
5	NSF CMMI – 1727490	Next Generation Deep Drawing Using Smart Observers, Close-Loop Control, and 3D-Servo-Press (US-Germany collaboration)	PI: B. Kinsey	8/17-7/20	364,438	364,438	182,219 (1/2nd of total)
6	NSF IIP – 1624640	University of New Hampshire Planning Grant: I/UCRC for Metal Deformation Processes (iuFOCUS)	PI: B. Kinsey other co-PI: M. Knezevic	7/16-6/17	15,000	15,000	5,000 (1/3rd of total)
7	NSF CMMI-1916600	Early-Career Participant Support: The 13th International Conference on Numerical Methods in Industrial Forming Processes (NUMIFORM); Portsmouth, New Hampshire; June 23-27, 2019	PI: N. Padhye other co-PI: B. Kinsey	2/19-1/20	20,045	20,045	6,681 (1/3rd of total)
					TOTAL:	**3,216,721**	**767,881**

TEACHING EXPERIENCE

2019-pres. **Associate Professor**
The Ohio State University

- *ISE 4500 – Manufacturing Process Engineering* (upper division undergraduate)
- *ISE 7510 – Computational Modeling of Manufacturing Processes* (graduate)

2009-2018 **Associate (2015-present) and Assistant (2009-2015) Professor**
University of New Hampshire

- *ME 542 – Mechanical Dissection & Design Analysis* (lower division undergraduate)
- *ME 643 – Machine Design* (upper division undergraduate)
- *ME 777/877 - Computer-Aided Engineering* (upper division undergraduate & graduate)
- *ME 795/895 – Materials Processing in Manufacturing* (upper div. undergrad. & graduate)
- *ME 795/895/995 – Experimental Mechanics* (upper division undergraduate & graduate)
- *ME 927 – Theory of Plasticity* (graduate)

2005-2009 **Instructor** for *EM 319-Mechanics of Solids* (lower division undergraduate)
The University of Texas at Austin

2001-2005 **Teaching Assistant**
The University of Texas at Austin

- *EM 319 – Mechanics of Solids* (lower division undergraduate)
- *ASE 321K – Structural Analysis* (upper division undergraduate)
- *ASE 369K – Measurements and Instrumentation Lab* (upper division undergraduate)
- *EM 339 – Advanced Strength of Materials* (upper division undergraduate & graduate)
- *EM 357 – Mechanics of Composite Materials* (upper division undergrad. & graduate)
- *ASE 463Q – Design and Testing of Aerospace Structures* (upper division undergraduate)

POST-DOCTORAL RESEARCHERS

Current:

- Minki Kim (PhD KAIST, Korea, Prof. H. Huh)
  Started: Aug 2019

- Kelin Chen (PhD Univ. Texas-Austin, Prof. S. Kyriakides)
  Started: Oct 2019

Alumni:

- Jinjin Ha (PhD Postech, Korea, Prof. F. Barlat)
  Started: May 2016, Completed: Dec 2019
  Currently, Assistant Professor, University of New Hampshire
- Chetan Nikhare (PhD Deakin Univ., Australia, Prof. P. Hodgson)
  Started: Nov 2011, Completed: Aug 2013
  Co-mentored with B. Kinsey
  Currently, Associate Professor, Penn State-Erie

GRADUATE STUDENTS

Graduated Ph.D. students (at Univ. New Hampshire):

- Nengxiu Deng, *Characterization and numerical modeling of advanced automotive lightweighting materials*
  Student started (MS program): Sept. 2011. Defended: Dec. 2017
  Recipient of UNH CEPS Graduate Fellowship, 2011-2012
- Paul Knysh, *Study of post-necking hardening identification and deformation-induced surface roughening of metals*
  Student started: Sept. 2012 (MS program). Defended: May 2019
  Recipient of UNH CEPS Graduate Fellowship, 2012-2013 (not awarded due to budget cuts)
- Madhav Baral, *Experiments and modeling of plastic anisotropy and ductile fracture under multiaxial loading*
  Student started: Dec. 2015 (PhD program). Defended: Summer 2020

Current Ph.D. students (at The Ohio State Univ.):

- Clare Gu, *High-speed shearing and trimming of metal sheets and plates*
  Student started: Aug. 2019.

Current Ph.D. students (at Univ. New Hampshire):

- Benjamin Mitchell, *Processing of materials using supersonic water droplets*
  Student started: Sept. 2015. Estimated graduation: May 2021
  Co-advised with B. Kinsey and J. Klewicki (U. Melbourne)

Graduated MS and MEng students (at Univ. New Hampshire):

2020 Christopher Dunn, *Effect of prestrain on hole-expansion tests in Aluminum Alloy 6022-T4 (MEng Report)*
Student started: June 2016. Graduated: May 2020 (part-time)

2019 Pruthviraj Coimbatore Srinivasa, *Experimental investigation of elastic and plastic anisotropy of two advanced high strength steels: DP780, DP1180 (MEng Report)*
Student started: Jan 2018. Graduated: May 2019

2018 Adam Kaplan, *Experiments and analysis of aluminum tube hydroforming*
Student started: Sept. 2010. Graduated: May 2018 (part-time)

2016 Graham Cullen, *Ductility of stainless steel 304 under pulsed loading*
Student started: Sept. 2010. Graduated: Dec. 2016 (part-time)

2016 Timothy Roemer, *Studies in Continuous-Bending-Under-Tension of sheet metal*
Student started: Sept. 2013. Graduated: summer 2016 (part-time)
Co-advised with B. Kinsey

2015 Madhav Baral, *Experimental investigation of plastic anisotropy of commercially-pure Titanium*
Student started: Sept. 2013. Graduated: Dec. 2015
Student continues for a PhD

2015 Joseph Wilson, *Development of a biaxial loading frame for thin sheet cruciform specimens*
Student started: Sept. 2011. Graduated: May 2015 (part-time)
Co-advised with B. Kinsey

2015 Vojtech Kubec, *Enhancing the material testing capabilities at the University of New Hampshire*
Student started: June 2012. Graduated: May 2015

2014 Peter Ripley, *Development of biaxial loading apparatus for testing of microtubes under axial force and internal pressure and experiments on 304L stainless steel microtubes*
Student started: July 2012. Graduated: Dec. 2014

2014 Christopher Dick, *The Ring Hoop Tension and Ring Plane-Strain Tension tests for measuring the anisotropy of Al-6061-T4 tubes*
Student started: June 2012. Graduated: Aug. 2014

2014 Paul Knysh, *Explicit method for determining the inelastic heat fraction (IHF) of metals*
Student started: Sept. 2012. Graduated: Aug. 2014
Student continues for a PhD

2014 Nengxiu Deng, *Elastic and plastic anisotropy of a dual-phase and a mild steel sheet*
Student started: Sept. 2011. Graduated: June 2014
Student continues for a PhD

Current MS students (at Univ. New Hampshire):

- Jacqueline McNally, *Development of uniaxial and biaxial tension-compression testing capabilities for sheet metal*
  Student started: Sept. 2017. Estimated graduation: summer 2019

Current Part-time MS students (at Univ. New Hampshire):

- Benjamin Brownell, *Effect of loading path on enhanced formability in bulk and sheet forming processes*
  Student started: Sept. 2014. Estimated graduation: summer 2018
  Co-advised with B. Kinsey

DISSERTATION AND THESIS COMMITTEES (OTHER)

Current Ph.D. Dissertation Committees

- Pegah Jarast Shamsabadi, *Numerical modeling of cone penetration test on unsaturated sand inside a calibration chamber*
  Advisor: Prof. Majid Ghayoomi (Civil Engineering)

PhD Dissertation Committees – students graduated (at Univ. New Hampshire)

2018 Yunyao Jiang, *Design, mechanical experiments and modeling on a new family of 3D printed hybrid chiral mechanical metamaterials with negative Poisson's ratio*
Advisor: Prof. Yaning Li (Mechanical Engineering)

2017 Milan Ardeljan, *Size-sensitive crystal plasticity finite element framework for simulating behavior of lamellar metal-metal composites*
Advisor: Prof. Marko Knezevic (Mechanical Engineering)

2015 Saman Nouri, *Real-time quality control in milling*
Advisor: Prof. Barry Fussell (Mechanical Engineering)

2015 Miguel Negrete, *Numerical updating on collapse simulation of multi-story buildings through hybrid testing*
Advisor: Prof. Ricardo Medina (Civil Engineering)

2014 Robert Arredondo, *Non-linear wave equation for a string with jump property changes*
Advisor: Prof. John McHugh (Mechanical Engineering)

2013 Borys Drach, *Multiscale numerical modeling and characterization of carbon/carbon composites*
Advisor: Prof. Igor Tsukrov (Mechanical Engineering)

2012 Marcello Medeiros, *3-D Determination of Linear Viscoelastic Poisson's Ratio and Coefficient of Thermal Expansion of HMA using Digital Image Correlation*
Advisor: Prof. Jo Daniel (Civil Engineering)

2011 Raed Hassan, *Analytical and Numerical Prediction of Failure in Sheet Metal Forming Processes*
Advisor: Prof. Brad Kinsey (Mechanical Engineering)

2011 Judson DeCew, *Development of engineering tools to analyze and design flexible structures in open ocean environments*
Advisor: Prof. Igor Tsukrov (Mechanical Engineering)

MS Thesis Committees – students graduated (at Univ. New Hampshire)

2016 Yunyao Jiang, *Analytical, experimental and numerical study on the mechanical behavior of 3D printed auxetic chiral structures*
Advisor: Prof. Yaning Li (Mechanical Engineering)

2012 Yong Zhao, *Comparison of methods for on-line calibration of cutting force models in end milling*
Advisor: Prof. Barry Fussell (Mechanical Engineering)

2010 Lijie Wang, *Investigation of strain gradients and magnitudes during microbending*
Advisor: Prof. Brad Kinsey (Mechanical Engineering)

2010 Tugce Kasikci, *Experimental investigation of key assumptions in analytical failure criteria for sheet metal forming*
Advisor: Prof. Brad Kinsey (Mechanical Engineering)

2009 Catherine Mros, *Nanoforming of bulk metallic glass*
Advisor: Prof. Brad Kinsey (Mechanical Engineering)

OTHER PROFESSIONAL EXPERIENCE

2015-present **Associate Editor**
ASME Journal of Manufacturing Science and Engineering

2014-2015 **Guest Editor**
Special Issue on *Forming and Joining of Lightweight and Multi-material Systems*, ASME Journal of Manufacturing Science and Engineering
Co-editors: Jingjing Li (U. Hawaii), Edmund Chu (Alcoa), Blair Carlson (GM)

Jul.-Aug. 2012 **Visiting Assistant Professor**
Tokyo University of Agriculture and Technology, Koganei, Tokyo

- Investigation of the non-linear unloading response of biaxially loaded dual-phase steels using cruciform specimens.

Spr. 2011 **Consultant**
Fay-Spofford-Thorndike Engineers, Burlington, MA

- Investigation of clarifier shaft and sprocket problems in the Boston Wastewater Treatment Plant

Fall 2004 **Systems Engineer**
Solar Decathlon project, School of Architecture, University of Texas at Austin

- Design of mechanical and electrical systems of a 100% solar powered house

1999-2000 **Military Service**
Hellenic Army – Infantry Corps (seconded to the Technical Corps)

- Design of steel hangar for battle tank maintenance and related installations
- Design and conversion of trailer to mobile spare parts facility

Sum.1998 **Student Intern**
Corinth Pipe Works, Greece

- Equipment Maintenance Department
- Facility planning and layout of end-threading plant for large diameter oil and water well pipes

Sum.1997 **Student Intern**
Hellenic Aerospace Industry – Aerostructures Manufacturing Directorate

- Programming of CNC machine tools directly and using CATIA

- Tool, jig and fixture design

SYNERGISTIC ACTIVITIES

Conference Organizer:

- Chair of the Organizing Committee
  The 13th International Conference on Numerical Methods for Industrial Forming Processes, NUMIFORM 2019, Portsmouth, NH, June 23-27

Symposium Organizer:

- Member of Scientific Committee
  IDDRG 2018, Waterloo, CA, June 3-8, 2018
- Member of Scientific Committee
  TubeHydro 2017, Bangkok, UK, Nov 14-17, 2017
- Co-host and lab tour co-organizer
  NIST AMTech Sheet Metal Forming Roadmap Second Workshop
  Organizer: J. Cao (Northwestern U.), co-host: B. Kinsey
- International Topic Leader (Topic: Materials and Manufacturing)
  FISITA 2016 World Automotive Congress & Exhibition, Busan, Korea, Sept 26-30, 2016
- Member of Scientific Committee
  NUMISHEET 2016, Bristol, UK, Sept. 4-9
- Mini-symposium co-Organizer with F. Barlat (lead): *MS5: Advanced anisotropic constitutive equations for forming processes simulation*
  NUMIFORM 2016, Troyes, FR, July 4-7
- Co-organizer
  FORMing the Future Workshop at UNH*,* Durham, NH, May 25, 2016
- Member of International Scientific Committee
  International Conference on MicroManufacturing ICOMM 2016, Orange County, CA, Mar 29-31
- Symposium Organizer, *Symposium 18: Experiments and Constitutive Modelling of Materials in Advanced Forming Processes*
  Co-organizer: M.G. Lee (Korea Univ.)
  ASME 2015 Applied Mechanics and Materials Conference, McMAT2015, Seattle, June 29-July 1, 2015
- Member of International Scientific Committee
  International Conference on MicroManufacturing ICOMM 2015, Milan, Mar. 31-Apr 2
- Track Chair, *Forming and Joining of Traditional and Lightweight Materials*
  Responsible for inviting contributions, handling papers, coordinating the review process, assigning papers to sessions, chairing sessions and resolving conflicts.
  Track co-chairs: Edmund Chu (Alcoa), Jingjing Li (U. Hawaii), Blair Carlson (GM)

2014 ASME International Conf. on Manufacturing Science and Engineering, Detroit, MI

- Member of International Scientific Committee
  International Conference on MicroManufacturing ICOMM 2014, Singapore, Mar. 25-28
- Mini-symposium Organizer, *New and Established Standard Test Methods for Sheet Metals, and their "Off-label Use" in Research*
  Responsible for inviting contributions, handling papers, coordinating the review process, assigning papers to sessions, chairing sessions and resolving conflicts (12 papers).
  Co-organizer: Mark Iadicola (NIST)
  NUMISHEET 2014, Melbourne, Australia, Jan. 6-10, 2014
- Member of Scientific Committee
  NUMISHEET 2014, Melbourne, Australia, Jan. 6-10, 2014
- Track Chair, *Advances in Materials Forming*
  Responsible for inviting contributions, handling papers, coordinating the review process, assigning papers to sessions, chairing sessions and resolving conflicts.
  Track co-chair: Edmund Chu (Alcoa)
  2013 ASME International Conference on Manufacturing Science and Engineering, Madison, Wisconsin, Jun. 10-13, 2013
- Member of Scientific Committee
  International Conference on MicroManufacturing ICOMM 2013, Victoria, British Columbia
- Track Chair, *Advances in Materials Forming*
  Responsible for inviting contributions, handling 24 papers, coordinating the review process, assigning papers to sessions, chairing sessions and resolving conflicts.
  Track co-chair: Edmund Chu (Alcoa)
  2012 ASME International Conference on Manufacturing Science and Engineering, Notre Dame, Indiana
- Organizing Committee Member, *Advances in Solid and Structural Mechanics, A symposium in celebration of the 60th Birthdays of Stelios Kyriakides and Kenneth M. Liechti.*
  Responsible for inviting contributions and coordinating the presentation schedule.
  Co-organizers: Edmundo Corona (Sandia), Tasnim Hassan (NCSU), Liang-Hai Lee (Technip)
  Austin, Texas, May 13-14, 2011
- Mini-symposium Organizer, *Plasticity and Failure in Material Forming Processes*
  Responsible for inviting contributions (approx. 12 papers).
  Co-organizer: Muammer Koc (VCU), Conference organizer: Akhtar S. Khan (UMBC)
  2011 International Symposium on Plasticity and its Current Applications, Puerto Vallarta, Jan. 3-8, 2011

Other conference assistant (session chair, judge, etc.):

- Session Chair – Forming IV: Process Characterization
  12th International Manufacturing Science and Engineering Conference, MSEC 2017, Los Angeles, CA, USA, June 4-8, 2017
- Session co-Chair – Forming III: Modeling & Experiments

12th International Manufacturing Science and Engineering Conference, MSEC 2017, Los Angeles, CA, USA, June 4-8, 2017

- Student presentation judge
  45th North American Manufacturing Research Conference NAMRC, Los Angeles, CA, USA, June 4-8, 2017
- Session Chair – Material Modelling for Sheet Metal Forming
  2016 NUMISHEET, Bristol, UK, 4-9 Sept 2016
- Session Chair – Constitutive Modelling
  2016 NUMISHEET, Bristol, UK, 4-9 Sept 2016
- Participant and lab tour organizer
  UNH Aerospace & Defense Day, Durham, NH, Nov 4, 2015
- Session Chair – Incremental Forming
  2015 ASME International Conference on Manufacturing Science and Engineering, Charlotte, North Carolina, Jun. 8-12, 2015
- Session Chair
  Int'l Conf. on MicroManufacturing, ICOMM, Milano, Italy, Mar 31-Apr 2, 2015
- Session Chair
  AmeriMech Symposium: Material Property Identification, Dec 10-12, 2014, UT-Austin
- Poster Judge
  NEW.Mech 2012, Brown U., Providence, RI, Nov. 3 2012
- Session Chair, *Sheet Hydroforming*
  Session co-chair: Yukihisa Kuriyama
  5th International Conference on Tube Hydroforming, Noboribetsu, Japan, Jul. 24-27, 2011
- Session Chair, *Sheet and Tube Hydroforming-II*
  Track co-chairs: Gracious Ngaile & Serhat Kaya
  2010 ASME International Conference on Manufacturing Science and Engineering, Erie, Pennsylvania
- Session Chair, *Plastic Forming of Metals: Process & Tool Design*
  Track co-chairs: Brad L. Kinsey & Jaime Camelio
  2008 ASME International Conference on Manufacturing Science and Engineering, Chicago, Illinois
- Technical support volunteer at the 2007 ASME Applied Mechanics and Materials Conference McMAT, Austin, Texas
- Session Chair, *Mechanics of Manufacturing Processes*
  Topic co-chairs: Farhang Pourboghrat & John Carsley
  2007 ASME Applied Mechanics and Materials Conference McMAT, Austin, Texas

Proposal Reviewer:
National Science Foundation (U.S.), Natural Sciences and Engineering Research Council of Canada, various U.S. federal, state agencies and universities, and various European agencies.

Journal Reviewer (approx. 10-12 papers/yr.):

- International Journal of Solids and Structures
- International Journal of Fracture
- International Journal of Plasticity
- Journal of Materials Processing Technology
- ASME - Journal of Manufacturing Science and Engineering (US)
- International Journal of Materials Forming
- Experimental Mechanics
- SME – Journal of Manufacturing Processes (US)
- International Journal of Non-Linear Mechanics
- Institution of Mechanical Engineers – Journal of Engineering Manufacture (UK)
- Institution of Mechanical Engineers – Journal of Mechanical Engineering Science (UK)
- Institution of Mechanical Engineers – Journal of Process Mechanical Engineering (UK)
- Institution of Mechanical Engineers – Journal of Automobile Engineering (UK)
- International Journal of Mechanical Sciences
- Mechanics Research Communications
- International Journal of Advanced Manufacturing Technology
- Materials & Design
- Metallurgical & Materials Transactions - A
- Steel Research International
- Extreme Mechanics Letters
- Journal of Mechanics of Materials and Structures
- International Journal of Materials Research

Conference Paper Reviewer (multiple papers per conference):

- *Asia-Pacific Symposium on Engineering Plasticity and its Applications – AEPA 2018*, Jeju Island, Korea, Dec 2-7, 2018
- *Metal forming 2018*, Toyohashi, Japan, Sep 16-19, 2018
- *12th International Manufacturing Science and Engineering Conference, MSEC 2017*, Los Angeles, CA, USA, June 4-8, 2017
- *International Conference on MicroManufacturing ICOMM 2017,* Kaohsiung, Taiwan, Mar 27-30, 2017
- *ASME Conference on Ocean Offshore & Arctic Engineering (OMAE)*, Trondheim, Norway, Jun 25-30, 2017
- *12th NUMIFORM*, Troyes, France, Jul. 4-7, 2016
- *2016 ASME International Conf. on Manufacturing Science and Engineering*, Blacksburg, VA, Jun. 27-Jul 1, 2016

- *International Conference on MicroManufacturing ICOMM 2016*, Orange County, CA, Mar. 29-31, 2016
- *2015 ASME International Conf. on Manufacturing Science and Engineering*, Charlotte, NC, Jun. 8-12, 2015
- *International Conference on MicroManufacturing ICOMM 2015,* Milano, Mar. 31-Apr. 2, 2015
- *2014 ASME International Conf. on Manufacturing Science and Engineering*, Detroit, Michigan, Jun. 9-13, 2014
- *International Conference on MicroManufacturing ICOMM 2014*, Singapore, Mar. 25-28, 2014
- NUMISHEET 2014, Melbourne, Australia, Jan. 6-10, 2014
- *2013 ASME International Conference on Manufacturing Science and Engineering*, Madison, Wisconsin, Jun. 10-13, 2013
- *2012 ASME International Conference on Manufacturing Science and Engineering,* Notre Dame, Indiana, June 4-8, 2012
- *2011 ASME International Conference on Manufacturing Science and Engineering,* Corvallis, Oregon, June 13-17, 2011
- *2010 ASME International Conference on Manufacturing Science and Engineering,* Erie, Pennsylvania, Oct. 12-15, 2010

Memberships:

- American Society of Mechanical Engineers (ASME)
- Society of Manufacturing Engineers (SME)
- Society of Automotive Engineers (SAE)
- North American Deep Drawing Group (NADDRG)
- Japan Society for Technology of Plasticity

Memberships in Professional Societies' Committees:

- Member of the Manufacturing Processes Technical Committee, 2012-2020
  ASME Manufacturing Engineering Division
- Member of the Scientific Committee, 2013-2016
  International Institution for Micro Manufacturing (I2M2)

Internal service at the University of New Hampshire (partial list)

- **Graduate coordinator** of the Department of Mechanical Engineering (Jan. 2015-present), approx. 40-50 graduate students
- Undergraduate advisor of approx. 35 students/semester
- Member of the UNH Graduate Council (Sept 2016-present)

- Panelist at the UNH Research & Engagement Academy, March 25, 2016
- Trainer at the Responsible Conduct of Research workshop at UNH, Oct 2015
- Member of the Fulbright Campus Interviews Committee (Eng.), September 25, 2015
- Member of the Faculty Search Committee, Summer 2014, UNH/Manchester
- Panelist at the UNH "Making your NSF-forts count" meeting, April 15, 2014
- Member of the TECH 602 – Machine Shop Training curriculum design committee, Fall 2013
- Member of the Faculty Search Committee, AY 2013-2014, UNH/Manchester
- Member of CEPS Machinist Search Committee, Summer 2013
- Panelist at the UNH Research and engagement Academy, March 1, 2013
- Member of the Graduate Committee, Dept. of Mechanical Engineering, Spring 2013
- Member of the Undergraduate Curriculum Committee, Dept. of Mechanical Engineering, Fall 2012 – Fall 2015
- Member of the Assessment Committee, Dept. of Mechanical Engineering, AY 2012-2013
- Member of the Faculty Search Committee, AY 2011-2012, Dept. of Mechanical Engineering
- Numerous other internal service activities, such as member of the CEPS Industrial Scholarship selection committee, host of the April 2013 Mechanical Engineering Open House, coach and judge of capstone design projects (Mech. Eng. and Ocean Eng.), speaker and panelist at the UNH Research and Engagement Academy, presenter at ME 441 – Intro to Engineering Design and Solid Modeling (e.g., Oct 16, 2015) and at the UNH ASME Student Chapter, etc.

Other Activities:

- Organizer of the March joint meeting of the ASME and SME professional chapters and tour of the UNH manufacturing labs, Mar. 20, 2012, Durham, New Hampshire
- Technical Design Judge (Nov. 2009) and Project Judge (Nov. 2011 and Nov. 2013), FIRST LEGO League (FLL) regional qualifying tournament. Durham, New Hampshire
- Speaker at the 2009 New Hampshire TechFest to an audience of middle and high school students, on careers in science and engineering.
  Pinkerton Academy, Derry, New Hampshire
- Co-Organizer of a fundraiser at the University of Texas at Austin, to benefit the victims of Greek forest fires of summer 2007.
- Vice President of the Panhellenic Student Association of the University of Texas at Austin (2007-2009)

LEADERSHIP SKILLS

2009- Faculty advisor of the ASME Student Chapter

Department of Mechanical Engineering
University of New Hampshire

2009- Mentoring capstone (senior design) project teams (approx. 2-3/year).
Department of Mechanical Engineering
University of New Hampshire

- AY 16-17 Best industrial project award (department-wide award)
  Design and manufacturing of a lathe for electrochemical machining
  Students: Carlos Graniello and Simon Popecki
- AY 14-15 Best project award (college-wide)
  The mechanics, biomimetics, and 3D printing of cellular materials
  Students: Carolyn Przekaza, Stephanie Medicke and Emily Huchinson
  Co-advised with Y. Li and Y. Jiang

2005-2009 While a graduate student, Instructor of a class of 60-190 students/semester. Supervisor of 3-6 Teaching Assistants/semester. Student evaluation of the Instructor: 3.8-4.5/5
The University of Texas at Austin

Spring 2003 Mentoring 3 teams of 2-3 students each, for the Senior Design Project.
Department of Aerospace Engineering & Engineering Mechanics
The University of Texas at Austin

1999-2000 Military service. Promoted to the rank of sergeant.

LANGUAGES

Fluent in Greek and in English, elementary Japanese

COMPUTER SKILLS

MS Office, FORTRAN, Matlab, Mathematica, Abaqus, Ansys, SolidWorks, LabVIEW, Kaleidagraph, ClarisCAD, LaTEX.

PERSONAL INTERESTS

Biking, swimming, sailing, kayaking, hiking, History of Technology