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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

2024 - present	**Director** Institute of Forming Technology and Lightweight Components – IUL Technical University of Dortmund, Germany
2023 - present	**Professor** Technical University of Dortmund, Germany
2019 - 2023	**Associate Professor** The Ohio State University, USA
2018 - present	**Visiting Researcher** Institute of Global Innovation Research, Tokyo University of Agriculture and Technology, Japan
2015 - 2018	**Associate Professor** University of New Hampshire, USA
2009 - 2015	**Assistant Professor** University of New Hampshire, USA

Jul.-Aug. 2012	**Visiting Assistant Professor** Tokyo University of Agriculture and Technology, Koganei, Japan
2005 - 2009	**Instructor** The University of Texas at Austin, USA
2001 - 2005	**Graduate Research Assistant (1/2 time appointment)** The University of Texas at Austin, USA
2001 - 2005	**Teaching Assistant (1/2 time appointment)** The University of Texas at Austin, USA
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, IN, USA, Jun. 4-8, 2012
2011	Best Young Researcher Award *5th International Conference on Tube Hydroforming*, Noboribetsu, Japan, Jul. 24-27, 2011
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. K. Chen, A.J. Carter and **Y.P. Korkolis**, "Working envelope in cup-drawing of AA1100: experiments and analysis", submitted (2024)
2. R. Gitschel, J. Gebhard, **Y.P. Korkolis** and A.E. Tekkaya, "Isolating the effects of deviatoric and hydrostatic stress on damage evolution using cold extrusion experiments", submitted (2024)
1. S. Zhang, **Y.P. Korkolis**, K.C. Riffel and A.J. Ramirez, "Optimizing the combined isotropic/kinematic hardening parameters of pressure vessel materials and welds using the incremental elastic-limit approach", submitted (2024)

JOURNAL PUBLICATIONS

71. B.R. Mitchell, **Y.P. Korkolis** and B.L. Kinsey, "Erosion characteristics of water droplet machining", *Journal of Materials Processing Technology*, 327, 118359 (2024)
70. N. Hoenen, J. Grodotzki, P. Bieker, M. Hahn, **Y.P. Korkolis** and A.E. Tekkaya, "Sequentially tailored profiles with adjustable transition zones by roll-slide-drawing", *CIRP Annals*, 73 (1), 213-216 (2024)
69. P. Lennemann, **Y.P. Korkolis** and A.E. Tekkaya, "Influence of changing loading directions on damage in sheet metal forming", *Advances in Industrial and Manufacturing Engineering*, 8, 100139 (2024)
68. M. Baral, P.W. Ripley, Y. Lou and **Y.P. Korkolis**, "Anisotropic ductile fracture of a stainless steel under biaxial loading: Experiments and predictions", *International Journal of Plasticity*, 175, 103927 (2024)
67. C.J. Fietek, J.D. Seidt, H. Lim and **Y.P. Korkolis**, "Rate-dependent hole-expansion experiments on plastically anisotropic sheets", *JOM,* 75, 5515–5526 (2023)

66. **Y.P. Korkolis**, P. Knysh, K. Sasaki, T. Furushima and M. Knezevic, "Deformation-induced surface roughening of an aluminum–magnesium alloy: experimental characterization and crystal plasticity modeling", *Materials,* 16 (16), 5601 (2023)

65. B. Mitchell, Y. Yokoyama, A. Nassiri, Y. Tagawa, **Y.P. Korkolis** and B.L. Kinsey, "An investigation of Hertzian contact in soft materials using photoelastic tomography", *Journal of the Mechanics and Physics of Solids*, 171, 105164 (2023)

64. Y. Yokoyama, B. Mitchell, A. Nassiri, B.L. Kinsey, **Y.P. Korkolis** and Y. Tagawa, "Integrated photoelasticity in a soft material: phase retardation, azimuthal angle, and stress-optic coefficient", *Optics and Lasers in Engineering*, 161, 107335 (2023)

63. M. Baral, A. Al-Jewad, A. Breunig, P. Groche, J. Ha and **Y.P. Korkolis**, B.L. Kinsey, "Acoustic emission monitoring for necking in sheet metal forming", *Journal of Materials Processing Technology*, 310, 117758 (2022)

62. K. Chen, A.J. Carter and **Y.P. Korkolis**, "Flange wrinkling in deep-drawing: experiments, simulations and a reduced-order model", *Journal of Manufacturing and Materials Processing*, 6 (4), 76 (2022)

61. M. Kim, K. Chen, P. Carriere, N. Matavalam, J. Penney, S. Kutsaev and **Y.P. Korkolis**, "Mechanical behavior and forming of commercially-pure niobium sheet", *International Journal of Solids and Structures*, 257, 111770 (2022)

60. K. Chen, A. Breunig, J. Ha, B.L. Kinsey, P. Groche and **Y.P. Korkolis**, "Robustness of deep-drawing finite-element simulations to process variations", *International Journal of Material Forming,* 15 (3), 45, (2022)

59. P. Groche, A. Breunig, K. Chen, D.A. Molitor, J. Ha, B.L. Kinsey and **Y.P. Korkolis**, "Effectiveness of different closed-loop control strategies for deep drawing on single-acting 3D Servo Presses", *CIRP Annals*, 71 (1), 357-360 (2022)

58. B.K. Roy, **Y.P. Korkolis**, Y. Arai, W. Araki, T. Iijima and J. Kouyama, "Plastic deformation of AA6061-T6 at elevated temperatures: Experiments and modeling", *International Journal of Mechanical Sciences*, 216, 106943 (2022)

57. Y. Choi, J. Ha, M.-G. Lee and **Y.P. Korkolis**, "Observation of Portevin-le Chatelier effect in aluminum alloy 7075-W under a heterogeneous stress field", *Scripta Materialia*, 205, 114178 (2021)

56. K. Chen and **Y.P. Korkolis**, "Buckling and post-buckling of an elastica under a lateral restraining force", *International Journal of Solids and Structures,* 233, 111178 (2021)

55. Y. Choi, J. Ha, M.-G. Lee and **Y.P. Korkolis**, "Effect of plastic anisotropy and Portevin-Le Chatelier bands on hole-expansion in AA7075 sheets in-T6 and-W tempers", *Journal of Materials Processing Technology*, 296, 117211 (2021)

54. J. Ha and **Y.P. Korkolis,** "Hole-expansion: sensitivity of failure prediction on plastic anisotropy modeling", *Journal of Manufacturing and Materials Processing*, 5 (2), 28 (2021)

53. K. Chen and **Y.P. Korkolis,** "A simplified model of elastic column buckling under constant lateral force restraint", *Archive of Applied Mechanics*, 91, 2817–2832 (2021)

52. B.K. Roy, **Y.P. Korkolis**, Y. Arai, W. Araki, T. Iijima and J. Kouyama, "A study of forming of thin-walled hemispheres by mandrel-free spinning of commercially pure aluminum tubes", *Journal of Manufacturing Processes,* 64, 306-322 (2021)

51. E.M. Mamros, J. Ha, **Y.P. Korkolis** and B. Kinsey, "Experimental investigation and plasticity modeling of SS316L microtubes under varying deformation paths", *ASME Journal of Micro and Nano-Manufacturing,* 8 (4), 041008 (2021)

50. 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*, 287, 116658 (2021) – Marciniak 100th Birthday Special Issue on Metal Forming

49. M. Baral and **Y.P. Korkolis,** "Ductile fracture under proportional and non-proportional multiaxial loading", *International Journal of Solids and Structures,* 210, 88-108 (2021)

48. J. Ha, J. Fones, B.L. Kinsey and **Y.P. Korkolis,** "Plasticity and formability of annealed, commercially-pure aluminum: experiments and modeling", *Materials,* 13 (19), 4285 (2020)

47. J. Ha, S. Coppieters and **Y.P. Korkolis,** "On the expansion of a circular hole in an orthotropic elastoplastic thin sheet", *International Journal of Mechanical Sciences,* 182, 105706 (2020)

46. 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", *The International Journal of Advanced Manufacturing Technology,* 110 (7), 1851 (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*, 13, 393–408 (2020)

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

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, 103685 (2019)

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, 28–37 (2019)

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, 42–51 (2019)

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, 300–322 (2019)

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, 101–121 (2019)

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, 707–714 (2019)

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, 95–105 (2019)

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, 123–139 (2018)

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, 157–171 (2018)

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, 285–288 (2018)

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 (4), 041011, 1–7 (2018)

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, 264–278 (2018)

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, 164–194 (2018)

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, 247–253 (2018)

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, 383–397 (2018)

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, 149–160 (2017), **and**
P. Knysh and **Y.P. Korkolis**, "Blackbox: A procedure for parallel optimization of expensive black-box functions”, *arXiv 1605.00998v1 [cs.MS]* (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, 329–343 (2017)

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, 968–973 (2016)

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, 276–285 (2016)

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, 65–87 (2016)

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, 26–45 (2016)

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 (3), 130 (2016)

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, 1115–1123 (2016)

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, 273–286 (2016)

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, 87–112 (2015)

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, 051006-1–9 (2015)

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

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

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, 631–636 (2015)

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, 63–73 (2014)

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, 4891–4896 (2014)

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, 3042–3057 (2014)

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, 580–585 (2013)

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, 242–255 (2013)

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

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, 041011-1–9 (2012)

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

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

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, 2680–2692 (2010)

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, 064501-1–5 (2010)

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

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, 1625–1637 (2008)

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

PAPERS IN CONFERENCE PROCEEDINGS (PEER-REVIEWED)

87. N. Hoenen, J. Grodotzki, P. Bieker, M. Hahn, **Y.P. Korkolis** and A.E. Tekkaya, "Sequentially tailored profiles with adjustable transition zones by roll-slide-drawing", *73rd CIRP General Assembly,* Thessaloniki, Greece, Aug. 18–24 (2024)

86. G. Marin, J. Gebhard, **Y.P. Korkolis** and A.E. Tekkaya, "Characterization and formability of sheets produced from extruded aluminum chips", *International Conferences on Aluminum Alloys ICAA,* Atlanta, GA, USA, June 23–27 (2024)

85. Y. Daterao, F. Pourboghrat and **Y.P. Korkolis**, "Experimental determination of the forming envelope in hydroforming of AA6111-T4 tubes", *International Conferences on Aluminum Alloys ICAA,* Atlanta, GA, USA, June 23–27 (2024)

84. J. Ha, Y. Choi, M.-G. Lee and **Y.P. Korkolis**, "Enhanced formability in two-step forming for AA7075 sheet in -T6 and -W tempers", *27th International ESAFORM Conference on Material Forming,* Toulouse, France, April 24–26 (2024)

83. M. Baral and **Y.P. Korkolis**, "Ductile fracture of tubular specimens under non-proportional loading condition", *43rd International Deep Drawing Research Group (IDDRG) Conference 2024*, Melbourne, Australia, Mar. 12–15 (2024)

82. A.L. Bolar, I. Alawadhi, S. Ramnath, P. Kumar, **Y.P. Korkolis**, J.K. Davidson and J.J. Shah, "Generating large datasets of simplified automotive body-in-white structures to predict springback using machine learning", *International Design Engineering Technical Conferences and Computers and Information in Engineering Conference IDETC/CIE2023,* V002T02A042, Boston, MA, USA, Aug. 20–23 (2023)

81. S. Sato, M. Kim, J. Ha, **Y.P. Korkolis** and T. Kuwabara, "Cruciform tension-shear test for sheet metal: Evaluation of methods for calculating plastic work", *42nd Conference of the International Deep Drawing Research Group IDDRG*, 1284 (1), 12074, Luleå, Sweden, June 19–22 (2023)

80. A.J. Carter, K. Chen and **Y.P. Korkolis**, "Experiments and simulations of the drawing envelope of commercially pure aluminum", *42nd Conference of the International Deep Drawing Research Group IDDRG*, 1284 (1), 12031, Luleå, Sweden, June 19–22 (2023)

79. B.K. Roy, **Y.P. Korkolis**, Y. Arai, T. Iijima and J. Kouyama, "Study of multi-pass tube spinning at elevated temperatures for forming a spherical shape", *Proceedings of the 10th International Conference on Tube Hydroforming, TUBEHYDRO2022*, Matsue (Shimane), Japan, Nov. 14–77 (2022)

78. A. Adrian, S. Ramnath, S.C. Sunkara, **Y.P. Korkolis**, J.K. Davidson and J.J. Shah, "Curating datasets of flexible assemblies to predict spring-back behavior for machine learning purposes", *International Manufacturing Science and Engineering Conference MSEC,* 85819, V002T06A025, West Lafayette, IN, USA, June 27–July 1 (2022)

77. M. Baral, A. Al-Jewad, A. Breunig, J. Ha, P. Groche, **Y.P. Korkolis** and B.L. Kinsey, "Acoustic emission sensors to monitor early onset of necking during uniaxial tension", *International Manufacturing Science and Engineering Conference MSEC,* 85819, V002T05A045, West Lafayette, IN, USA, June 27–July 1 (2022)

76. M. Kim, J. Ha and **Y.P. Korkolis**, "Shape optimization of a cruciform-like specimen for combined tension and shear loading", *NUMISHEET 2022: Proceedings of the 12th International Conference and Workshop on Numerical Simulation of 3D Sheet Metal Forming Processes*, 389–397, Toronto, ON, Canada, July 10–14 (2022)

75. J. Ha and **Y.P. Korkolis**, "Sensitivity study of plastic anisotropy on failure prediction in hole-expansion", *NUMISHEET 2022: Proceedings of the 12th International Conference and Workshop on Numerical Simulation of 3D Sheet Metal Forming Processes*, 727–731, Toronto, ON, Canada, July 10–14 (2022)

74. M. Kim, J. Ha, J. McNally and **Y.P. Korkolis**, "Transient hardening and r-value behavior in two-step tension and loading reversal for DP980 sheet", *IDDRG 2022: IOP Conference Series: Materials Science and Engineering*, 1238(1), 12002, Lorient, France, June 6–10 (2022)

73. S. Sato, M. Kim, J. Ha, **Y.P. Korkolis** and T. Kuwabara, "Tensile-shear combined stress test of thin metal plate using cruciform specimen" (in Japanese), *Spring Conference of Japan Society for Technology of Plasticity, JSTP*, Japan, (2022)

72. K. Chen, M. Kim, P. Carriere, J. Penney, N. Matavalam, S. Kutsaev and **Y.P. Korkolis**, "Deep-drawing and stretch-forming of commercially-pure niobium sheets", *Proceedings of 2022 EDAFORM*, Key Engineering Materials, 926, 1075-1082, Braga, Portugal, Apr. 27–29 (2022)

71. J. Ha, Y. Choi, M.-G. Lee and **Y.P. Korkolis**, "Formability of AA7075-W in hole-expansion", *ESAFORM Conference*, Virtual, Apr. 14–16 (2021)

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, June 15–18 (2020)

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, Aug. 23–28 (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, Aug. 23–28 (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 (2020)

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 (2020)

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 (2020)

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 (2020)

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, ON, Canada, July 19–24 (2020)

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, ON, Canada, July 19–24 (2020)

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, OH, 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, IDDRG*, Busan, South Korea, June 7–11 (2020)

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 (2020)

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, Nov. 18–21 (2019) **Conference Keynote Speech**

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, USA, June 23–27 (2019)

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, USA, June 23–27 (2019)

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, USA, June 23–27 (2019)

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, USA, June 23–27 (2019)

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, USA, June 23–27 (2019)

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, USA, June 23–27 (2019)

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, USA, June 23–27 (2019)

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, Netherlands, June 3–7 (2019)

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 (2019)

47. 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, USA, Apr. 9–11 (2019)

46. 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 (2018)

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 (2018)

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 (2018)

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 (2018)

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, USA, 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, USA, 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, ON, 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, Sept. 17–22 (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, Sept. 17–22 (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, Sept. 17–22 (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, Sept. 4–9 (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, QC, Canada, Aug. 21–26 (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, VA, USA, 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, NC, USA, 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, MI, USA, 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, MI, USA, 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, USA, 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, South 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, WI, USA, 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, WI, USA, 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 IDDRG*, Mumbai, India, Nov. 25–28 (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, IN, USA, 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*, San Juan, 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, OR, USA, June 13–17 (2011)

10. 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 Symposium on Plasticity and its Current Applications*, Puerto Vallarta, Mexico, 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, Mexico, 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, PA, USA, 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, PA, USA, 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, South 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, CO, USA, 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, IL, 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, HI, USA, Jan. 3–8 (2008)

CONFERENCE PROCEEDINGS (OTHER) / PRESENTATIONS / POSTERS

87. O. Schrage, T. Clausmeyer, M. Hahn, A.E. Tekkaya and **Y.P. Korkolis,** "Conditions for shear band formation in high-speed blanking with punch speeds up to 10 m/s", *MSE Congress 2024,* Darmstadt, Germany, Sept. 24–26 (2024)

86. O. Schrage, M. Hahn, H.J. Dardaei, **Y.P. Korkolis** and A.E. Tekkaya, "Recent developments on high-speed blanking of advanced high-strength steels", *15th Forming Technology Forum FTF 2024,* Ohlstadt, Germany, Sept. 11–12 (2024)

85. M. Kim, J. Ha and **Y.P. Korkolis**, "Kinematic and distortional hardening modeling of a dual-phase steel: a comparison of model performance", *8th International Conference on Material Modelling ICMM,* London, Great Britain, July 15–17 (2024)

84. **Y.P. Korkolis**, "Validation and identification of constitutive models for sheet metal forming: the forward and inverse problems", *Presentation at CIRP Winter Meeting,* Paris, France, Feb. 21–23 (2024)

83. M. Baral, Y. Lou and **Y.P. Korkolis**, "Characterization and modeling of anisotropic ductile fracture of a stainless steel", *International Conference on Plasticity, Damage & Fracture ICPDF,* Panama City, Panama, Jan. 3–9 (2024)

82. M. Kim, J. Ha and **Y.P. Korkolis**, "Subsequent hardening and deformation responses during non-proportional loading based on kinematic and distortional hardening models", *International Conference on Plasticity, Damage & Fracture ICPDF,* Panama City, Panama, Jan. 3–9 (2024)

81. J. Seidt, **Y.P. Korkolis**, C. Fietek and H. Lim, "Hole Expansion Testing of Thin Sheet Materials at Various Strain Rates for Advanced Constitutive Model Calibration", *Materials Science & Technology Technical Meeting and Exhibition MS&T,* Columbus, OH, USA, Oct. 1–4 (2023)

80. J. Ha, M. Kim, J. McNally and **Y.P. Korkolis**, "Evolution of anisotropy in plastic flow under non-proportional loading paths", *14th International Conference on the Technology of Plasticity ICTP*, Cannes, France, Sept. 24–29 (2023)

79. M. Baral, A. Al-Jewad, A. Breunig, P. Groche, J. Ha, **Y.P. Korkolis** and B.L. Kinsey, "Acoustic emission technique to monitor necking in sheet metal forming process", *14th International Conference on Numerical Methods in Industrial Forming Processes NUMIFORM*, Kraków, Poland, June 25–29 (2023)

78. M. Baral and **Y.P. Korkolis**, "Ductile fracture of SS-304L microtube under combined axial force and internal pressure", *15th International Conference on Fracture ICF15,* Atlanta, GA, USA, June 11–16 (2023)

77. J. Noder, R. Rezaei, J. McNally, J. Shah and **Y.P. Korkolis**, "Springback in flexible assemblies", *Presentation at NADDRG Spring Meeting*, Troy, MI, USA, May 23 (2023)

76. M. Baral and **Y.P. Korkolis**, "Characterization and modeling of plasticity and ductile fracture of tubular specimens", *International Conference on Plasticity, Damage & Fracture 2023 ICPDF,* Punta Cana, Dominican Republic, Jan. 3–9 (2023)

75. Y. Yokoyama, S. Ichihara, B. Mitchell, A. Nassiri, B. Kinsey, **Y.P. Korkolis** and Y. Tagawa, "Droplet impact on highly deformable substrate and three-dimensional stress fields measurement by photoelastic tomography", *75th Annual Meeting of the APS Division of Fluid Dynamics,* Bulletin of the American Physical Society, Indianapolis, IN, USA, Nov. 20–22 (2022)

74. Y. Daterao, J. Malpica, P. Lester, D. Anderson, F. Pourboghrat, **Y.P. Korkolis**, "Hydroforming of roll-formed aluminum tubes: establishment of forming envelope and virtual process design", *Presentation at NADDRG 2022 Fall Meeting*, Columbus, OH, USA, Nov. 03 (2022)

73. B. Mitchell, Y. Yokoyama, A. Nassiri, Y. Tagawa, B.L. Kinsey and **Y.P. Korkolis**, "Direct determination of the stress components during Hertzian contact on a soft solid using photoelastic tomography", *ASME IMECE 2022, International Mechanical Engineering Congress & Exposition*, Columbus, OH, USA, Oct. 30–Nov. 3 (2022)

72. K. Chen, A.J. Carter and **Y.P. Korkolis**, "Investigation of the working envelope in cup-drawing of pure aluminum", *ASME IMECE 2022, International Mechanical Engineering Congress & Exposition*, Columbus, OH, USA, Oct. 30–Nov. 3 (2022)

71. K. Chen, C. Bruce and **Y.P. Korkolis**, "Asymmetric buckling and mode-switching of an elastica under a lateral restraining force", *19th U.S. National Congress on Theoretical and Applied Mechanics USNCTAM2022*, Austin, TX, USA, June 19–24 (2022)

70. M. Baral and **Y.P. Korkolis**, "Probing fracture anisotropy with tubular specimens: the effect of specimen geometry", *19th U.S. National Congress on Theoretical and Applied Mechanics (USNCTAM2022)*, Austin, TX, USA, June 19–24 (2022)

69. **Y.P. Korkolis**, "Recent applications of Digital Image Correlation in constitutive modeling and formability assessment", *Presentation at NADDRG 2022 Spring Meeting*, Detroit, MI, USA, May 23 (2022)

68. M. Baral and **Y.P. Korkolis**, "Anisotropic ductile fracture of 304L stainless steel", *Asia Steel 2021 Conference*, Gyeongju, Korea, Dec. 9 (2021)

67. K. Chen, C. Bruce and **Y.P. Korkolis**, "Buckling of an elastica under a lateral restraining force: experimental validation", *ASME IMECE 2021, International Mechanical Engineering Congress & Exposition*, (virtual), Nov. 1–5 (2021)

66. B.K. Roy, **Y.P. Korkolis**, Y. Arai, W. Araki, T. Iijima and J. Kouyama. "Multi-Pass Mandrel-Free tube spinning at elevated temperature for producing space rocket fuel tank", *ASME IMECE 2021, International Mechanical Engineering Congress & Exposition*, (virtual), Nov. 1–5 (2021)

65. E.M. Mamros, S.M. Mayer, J. Ha, **Y.P. Korkolis**, B.L. Kinsey, "Accounting for phase transformation in plastic anisotropy modeling of SS316L", *TMS Materials Science & Technology MS&T 21*, Columbus, OH, USA, Oct. 20 (2021)

64. M. Baral and **Y.P. Korkolis**, "Fracture anisotropy of SS-304L tubes under biaxial loading", *TMS Materials Science & Technology MS&T 21*, Columbus, OH, USA, Oct. 20 (2021)

63. M. Baral, J. Ha, P. Groche, **Y.P. Korkolis** and B.L. Kinsey, "Acoustic emission sensors to monitor for material necking during forming", *40th International Deep-Drawing Research Group (IDDRG) Conference 2021*, Stuttgart, Germany (virtual), June 21–July 2 (2021)

62. **Y.P. Korkolis,** "Plastic anisotropy and ductile fracture of metals: experiments and modeling", *Presentation at Ma2JIC IAB meeting*, (virtual), Jan. (2021)

61. J. Ha, Y. Choi, M.-G. Lee and **Y.P. Korkolis**, "Room-temperature hole-expansion of AA7075 in –T6 and –W tempers", *NADDRG December Meeting*, (virtual), Dec. 10 (2020)

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, OR, USA, Nov. 15–19 (2020)

59. **Y.P. Korkolis**, "Solid Mechanics in Manufacturing", *Inaugural "Lightning Talks"*, *Naval Surface Warfare Center Crane*, (virtual), Aug. 17 (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, USA, Feb. 23–27 (2020)

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 (2020)

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, OH, USA, 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,* Herrsching, Germany, Sept. 19–20 (2019)

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, USA, 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, USA, 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, Japan, 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", (poster), *2nd Materials Chain Int'l Conf. – MCIC 2018*, Bochum, Germany, Nov. 12–14 (2018)

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, USA, 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, USA, 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, USA, 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, USA, 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, USA, Apr. 10-12 (2018)

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*, Pohang, South Korea, Oct. 15–17 (2017)

41. M. Baral and **Y.P. Korkolis**, "Plastic Anisotropy and Constitutive Modeling of CP-Ti", *NEW.Mech 2017, MIT,* Boston, MA, USA, 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, USA, 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, USA, 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, CA, USA, 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, USA, 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, USA, 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, USA, 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, USA, 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, USA, Oct. 22 (2016)

30. **Y.P. Korkolis**, "Material characterization for metal forming simulations", *FORMing the Future Workshop*, Durham, NH, USA, 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, USA, 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*, Nashville, TN, USA, Feb. 14–18 (2016)

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*, Nashville, TN, USA, Feb. 14–18 (2016)

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

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, HI, USA, 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, USA, 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, USA, 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, WA, USA, 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, NC, USA, June 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, Il, USA, 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* (participation by invitation only), Paris, France, Mar. 17–20 (2015)

18. B.L. Kinsey and **Y.P. Korkolis**, "Materials forming research at UNH", Presentation at the UNH ASME Student Chapter, Durham, NH, USA, 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* (participation by invitation only), Austin, TX, USA, Dec. 10–12 (2014)

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, Canada, Nov. 14–20 (2014)

13. B.L. Kinsey and **Y.P. Korkolis**, "Materials Forming research at UNH", Presentation at the UNH ASME Student Chapter, Durham, NH, USA, 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, USA, 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, USA, 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, USA, 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, USA, 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, USA, 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, TX, USA, 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, GA, USA, 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, GA, USA, 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, Canada, 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, TX, USA, 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, TN, USA, 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, TX, USA, June 3–7 (2007)

INVITED TALKS

33. **Y.P. Korkolis**, "Validation and identification of constitutive models for sheet metal forming simulations", **Keynote Presentation** at the *43rd International Deep Drawing Research Group IDDRG Conference 2024*, Melbourne, Australia, Mar. 12–15 (2024)

32. **Y.P. Korkolis**, "Some recent advances in ductile fracture, its anisotropy and path-dependence", Invited talk at Texas A&M University, College Station, TX, USA, Oct. 28 (2022)

31. **Y.P. Korkolis**, "Fracture anisotropy of SS-304L tubes under biaxial loading", (virtual). Invited talk at Xi'an Jiaotong University, China, Dec. 13 (2021)

30. J. Ha, M. Baral and **Y.P. Korkolis**, "Ductile fracture under proportional loading using a cruciform-like specimen". **Keynote Presentation** at the *International Symposium on Technology of Plasticity for Celebrating KSTP's 30 Years Anniversary*, (virtual), Busan, South Korea, Nov. 24–26 (2021)

29. **Y.P. Korkolis** and W. Moore, "Stamping of sheet metal using macro-textured tools – Optimizing the Forming Equation". Presentation to OSU Eng. Dean and Honda Executives as representative example of OSU-Honda collaborative work, Marysville, OH, USA, Aug. 17 (2021)

28. **Y.P. Korkolis**, ""Some recent advances in ductile fracture, its anisotropy and path-dependence", *Monthly global virtual "Coffee break"* organized by Prof. Erman Tekkaya of TU Dortmund, Germany, Jan. 29 (2021)

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, South 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, 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, Sept. 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, June 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*, MI, USA, 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*, HI, USA, Jan. 14 (2016)

12. **Y.P. Korkolis**, "Biaxial loading-unloading behavior of DP590 steel probed with cruciform specimens", *Invited talk at South Korea University*, Seoul, South Korea, 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, South 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*, South 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*, Germany, 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*, TX, USA, 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, USA, 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, 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, WA, USA, Nov. 17 (2010)

TEACHING EXPERIENCE

2023-present **Professor**
Technical University Dortmund

- *MMT – Bulk metal forming* (graduate)
- *MMT – Sheet metal forming* (graduate)

2019-2023 **Associate Professor**
The Ohio State University

- *ISE 4500 – Manufacturing Process Engineering* (upper division undergraduate)
- *ISE 5501 – Fundamentals of Solid State Processing* (upper division undergraduate – graduate)
- *ISE 7510 – Computational Modeling of Manufacturing Processes* (graduate)

2009-2018 **Associate (2015-2018) 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)

GUEST RESEARCHERS

Current:

- Jinjin Ha (PhD Postech, Korea, Prof. F. Barlat)
  Started: Jan. 2024, Completed: Aug 2024
  Currently, Assistant Professor, University of New Hampshire
- Yong Hou (PhD Tongji Univ. Shanghai, CN.)
  Started: May 2024,
- Shiori Gondo (PhD Waseda Univ., Japan, Prof. Shinsuke Suzuki)
  Started: July 2024

POST-DOCTORAL RESEARCHERS

Alumni:

- Jacqueline Noder (PhD Waterloo Univ., Prof. C. Butcher)
  Started: Feb. 2023, Completed: Sept. 2023

Currently, Postdoc, University of British Columbia

- Kelin Chen (PhD Univ. Texas-Austin, Prof. S. Kyriakides)
  Started: Oct 2019, Completed: Jul 2022
  Currently, Associate Professor, Dalian University of Technology
- Minki Kim (PhD KAIST, Korea, Prof. H. Huh)
  Started: Aug 2019, Completed: Aug 2021
  Currently, South Korea Institute of Industrial Technology
- 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 ADVISED BEFORE TU DORTMUND APPOINTMENT

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

2022 Benjamin Mitchell, *Water Droplet Machining and Droplet Impact Mechanics*
Student started: Sept. 2015. Defended: May 2022
Co-advised with B. Kinsey and J. Klewicki (U. Melbourne)

2020 Madhav Baral, *Experiments and modeling of plastic anisotropy and ductile fracture under multiaxial loading*
Student started: Dec. 2015 (PhD program). Defended: Summer 2020

2019 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)

2017 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

Graduated Ph.D. students (at Saitama Univ., Japan):

2021 Biplov Kumar Roy, *Development of simulation method of the spinning process for cylindrical to hemispherical shape of aluminium alloy at room temperature*
Student started: Jan. 2017. Defended: Mar 2021
Co-advised with Y. Arai (Saitama Univ.)

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

2023 Carter Fietek, *Heterogeneous materials testing for constitutive identification of materials across strain-rates and temperatures*
Student started: Jan. 2023

Recipient of GEM Fellowship, Dean's Discovery Scholars Fellowship and Department of Energy National Nuclear Security Administration SSG Fellowship

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

2022 Jacqueline McNally, *Development of a continuous-tension-compression machine for testing thin sheet metal*
Student started: Sept. 2017. Graduated: Sept. 2022 (2018-2022: part-time)

2020 Johnathon Fones, *Characterization of plasticity and formability of pure aluminum sheets for Industry 4.0 in stamping (Meng)*
Student started: Sept. 2018. Graduated: Aug 2020
Co-advised with B. Kinsey

2020 Christopher Dunn, *Effect of prestrain on hole-expansion tests in Aluminum Alloy 6022-T4 (MEng Report)*
Student started: June 2016. Graduated: May 2020 (2018-2020: 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: Jul 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

Graduated MS students (at The Ohio State Univ.):

2023 Monica Trask, *Enhanced forming envelope during sheet stamping with macro-textured tooling*
Student started: June 2022. Graduated: Dec 2023

2023 Adrian Carter, *Workability envelopes of commercially-pure aluminum and niobium sheets during cup-drawing*
Student started: Aug 2021. Graduated: Aug 2023
Recipient of GEM Fellowship and OSU COE Fellowship

2023 Yash Daterao Rajendra, *Hydroforming of Roll-Formed Aluminum Tubes*
Student started: June 2021. Graduated: Aug 2023

DISSERTATION AND THESIS COMMITTEES (OTHER)

PhD Dissertation Committees – students graduated (at Ohio State University)

2022 Shutong Zhang, *Low-cycle Fatigue Behavior of Low-alloy Steels and Welded Joints for Coke Drum Fabrication and Repair*
Advisor: Prof. Antonio Ramirez (Welding Engineering)

2021 Sobhan Alah Nazari Tiji, *Microstructure based characterization and modeling of mechanical properties and plastic anisotropy of AA7075 tube*
Advisor: Prof. Farhang Pourboghrat (Integrated Systems Engineering)

2021 Abolfazl Zolfaghari, *Fabrication of Precise Optical Components Using Electroforming Process and Precision Molding*
Advisor: Prof. Allen Yi (Integrated Systems 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)

Current MS Thesis Committees (at Ohio State University)

2022 Abhishek Bolar, *Generating Large Datasets of Simplified Automotive Body-in-White Structures to Predict Springback Using Machine Learning*
Advisor: Prof. Jami Shah (Mechanical Engineering)

MS Thesis Committees – students graduated (at Ohio State University)

2022 Alex Adrian, *Automation and validation of big data generation via simulation pipeline for flexible assemblies*
Advisor: Prof. Jami Shah (Mechanical Engineering)

2020 Hitansh Singhal, *Formability Evaluation of Tailor Welded Blanks (TWBs)*
Advisor: Prof. Taylan Altan (Integrated Systems 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)

MS Thesis Committees – students graduated (elsewhere)

2021 Gabriel Duarte Raposo, *Cold roll forming of high strength aluminium alloy by local pre-heat treatment*
Advisor: Prof. J.W. Yoon (Deakin Univ.)

JOURNAL EDITORIAL ACTIVITIES

2024 - present **Member of Editorial Board**
Journal of Materials Processing Technology

2024 - present **Member of Editorial Board**
International Journal of Solids and Structures

2020 - present **Member of Advisory Board**
MDPI - Solids

2018 - present **Member of Advisory Board**
Journal of Iron and Steel Institute of Japan

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

2023 **Guest Editor**
Automotive Innovations
Special Issue on *Enviromentally Benign Automotive Lightweighting*
Co-Editors: Junying Min (Tongji University), A. Erman Tekkaya (Technical University Dortmund), Yongbing Li (Jiao Tong University), **Yannis P. Korkolis** (Technical University Dortmund) and Ying Zhao (Tongji University)

2021 - 2022 **Guest Editor**
International Journal of Solids and Structures
Special Issue on the Occasion of *Professor Stelios Kyriakides' 70th Birthday*
Co-Editors: Edmundo Corona (Sandia Nat. Lab), Tasnim Hassan (NC State U.), Tracy Vogler (Sandia Nat. Lab)

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)

OTHER PROFESSIONAL EXPERIENCE

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
  NSF IUCRC Planning Meeting for Center for Industrial Metal Forming (CIMF)
  Columbus, OH, USA, Apr. 13–14 (2023)
- Chair of the Organizing Committee
  The 13th International Conference on Numerical Methods for Industrial Forming Processes, NUMIFORM 2019, Portsmouth, NH, USA, June 23–27 (2019)

Symposium Organizer and/or Member of Conference Scientific Committee:

- Member of Int'l Scientific Committee
  ICTP 2023, Cannes-Mandelieu, France, Sept. 24–29 (2023)
- Member of Scientific Committee
  North American Manufacturing Research Conference 2023, New Brunswick, NJ, USA, June 12–16 (2023)
- Member of Scientific Committee
  WCMNM 2022 (*5th World Congress on Micro and Nano Manufacturing*), Leuven, Belgium, Sept. 19–22 (2022)
- Member of the Scientific Committee
  7th International Conference on Advanced Manufacturing Engineering and Technologies – NEWTECH 2022, Rennes, France, Sept. 8–10 (2022)
- Member of Scientific Committee
  North American Manufacturing Research Conference 2022, Purdue Univ., IN, USA, June 27–July 1 (2022)

- Member of Organizing Committee
  4th Int'l Conf. in Uncertainty in Mechanical Engineering (ICUME), Darmstadt, Germany, June 07–08 (2021)
- Member of Scientific Committee
  North American Manufacturing Research Conference 2021, Cincinnati, OH, USA, June 22–June 25 (2021)
- Member of Scientific Committee
  40th International Deep-Drawing Research Group (IDDRG) Conference 2021, Stuttgart, Germany, June 21–July 2 (2021)
- Member of Scientific Committee
  6th International Conference NEWTEC2020, Galati, Romania, Sept. 9–11 (2020)
- Member of Scientific Committee
  38th International Deep Drawing Research Group (IDDRG) Annual Conference 2019, Enschede, Netherlands, June 3–7 (2019)
- Member of Scientific Committee
  Asia-Pacific Symposium on Engineering Plasticity and its Applications – AEPA 2018, Jeju, South Korea, Dec. 2–6 (2018)
- Member of Organizing Committee
  3rd Int'l Conf. in Uncertainty in Mechanical Engineering (ICUME), Darmstadt, Germany, Nov. 15–16 (2018)
- Member of Scientific Committee
  38th International Deep Drawing Research Group (IDDRG) Annual Conference 2018, Waterloo, CA, USA, 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, South Korea, Sept. 26–30 (2016)
- Member of Scientific Committee
  NUMISHEET 2016, Bristol, UK, Sept. 4–9 (2016)
- Mini-symposium co-Organizer with F. Barlat (lead): *MS5: Advanced anisotropic constitutive equations for forming processes simulation*
  NUMIFORM 2016, Troyes, France, July 4–7 (2016)
- Co-organizer
  FORMing the Future Workshop at UNH*,* Durham, NH, USA, May 25 (2016)
- Member of International Scientific Committee
  International Conference on MicroManufacturing ICOMM 2016, Orange County, CA, USA, Mar. 29–31 (2016)

- Symposium Organizer, *Symposium 18: Experiments and Constitutive Modelling of Materials in Advanced Forming Processes*
  Co-organizer: M.G. Lee (South Korea Univ.)
  ASME 2015 Applied Mechanics and Materials Conference, McMAT2015, Seattle, WA, USA, June 29–July 1 (2015)
- Member of International Scientific Committee
  International Conference on MicroManufacturing ICOMM 2015, Milan, Italy, Mar. 31–Apr. 2 (2015)
- 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, USA (2014)
- Member of International Scientific Committee
  International Conference on MicroManufacturing ICOMM 2014, Singapore, Mar. 25–28 (2014)
- 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, WI, USA, Jun. 10–13 (2013)
- Member of Scientific Committee
  International Conference on MicroManufacturing ICOMM 2013, Victoria, British Columbia, Canada, Mar. 25–28 (2013)
- 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, IN, USA, June 4–8 (2012)
- 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, TX, USA, 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, Mexico, 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, Sept. 4–9 (2016)
- Session Chair – Constitutive Modelling
  2016 NUMISHEET, Bristol, UK, Sept. 4–9 (2016)
- Participant and lab tour organizer
  UNH Aerospace & Defense Day, Durham, NH, USA, Nov. 4 (2015)
- Session Chair – Incremental Forming
  2015 ASME International Conference on Manufacturing Science and Engineering, Charlotte, NC, June 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, UT-Austin, TX, USA, Dec. 10–12 (2014)
- Poster Judge
  NEW.Mech 2012, Brown U., Providence, RI, USA, 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, PA, USA, Oct. (2010)
- 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, Il, USA, Oct. 7–10 (2008)

- Technical support volunteer at the 2007 ASME Applied Mechanics and Materials Conference McMAT, Austin, TX, USA, June 3–7 (2007)
- Session Chair, *Mechanics of Manufacturing Processes*
  Topic co-chairs: Farhang Pourboghrat & John Carsley
  2007 ASME Applied Mechanics and Materials Conference McMAT, Austin, TX, USA, June 3–7 (2007)

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
- Journal of Manufacturing Processes
- ASME - Journal of Manufacturing Science and Engineering (US)
- ASME - Journal of Pressure Vessels and Piping (US)
- International Journal of Materials Forming
- Experimental Mechanics
- 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
- Review of Scientific Instruments
- Tribology Letters

Conference Paper Reviewer (multiple papers per conference):

- *North American Manufacturing Research Conference 2023*, New Brunswick, NJ, USA, June 12–16 (2023)

- *North American Manufacturing Research Conference 2022*, Purdue Univ., IN, USA, June 2–July 1 (2022)
- *40th International Deep-Drawing Research Group (IDDRG) Conference 2021*, Stuttgart, Germany, June 21–July 02 (2021)
- *4th Int'l Conf. in Uncertainty in Mechanical Engineering (ICUME),* Darmstadt, Germany, June 07–08 (2021)
- *North American Manufacturing Research Conference 2021*, Cincinnati, OH, USA, June 22–June 25 (2021)
- *International Conference on the Technology of Plasticity ICTP 2020*, Columbus, OH, USA, July 26–31 (2020) (postponed to 2021)
- *39th International Deep Drawing Research Group (IDDRG) annual conference,* Busan, South Korea (virtual), Oct. (2020)
- *6th International Conference NEWTEC2020,* Galati, Romania, Sept. 9–11 (2020)
- *30th International Conference on Flexible Automation and Intelligent Manufacturing (FAIM2020)*, Athens, Greece, June 15–18 (2020) (postponed to 2021)
- *12th International Conference and Workshop on Numerical Simulation of 3D Sheet Metal Forming Processes (NUMISHEET 2020),* Toronto, Ontario, Canada (postponed to 2022)
- *World Conference on Micro Nano Manufacturing (WCMNM 2020),* Mumbai, India (2020)
- *38th International Deep Drawing Research Group (IDDRG) Annual Conference,* Enschede, Netherlands, June 3–7 (2019)
- *Asia-Pacific Symposium on Engineering Plasticity and its Applications – AEPA 2018*, Jeju Island, South Korea, Dec. 2–7 (2018)
- *3rd Int'l Conf. in Uncertainty in Mechanical Engineering (ICUME),* Darmstadt, Germany, Nov. 15–16 (2018)
- *Metal Forming 2018*, Toyohashi, Japan, Sept. 16–19 (2018)
- *International Conference on MicroManufacturing ICOMM 2018,* Portoroz, Slovenia, Sept. 18–20 (2018)
- *The 11th International Conference and Workshop on Numerical Simulation of 3D Sheet Metal Forming Processes, NUMISHEET 2018*, Tokyo, Japan, July 30–Aug. 3 (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, June 25–30 (2017)
- *12th NUMIFORM*, Troyes, France, Jul. 4–7 (2016)
- *2016 ASME International Conf. on Manufacturing Science and Engineering*, Blacksburg, VA, USA, Jun. 27–July 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, USA, Jun. 8–12 (2015)
- *International Conference on MicroManufacturing ICOMM 2015,* Milano, Italy, Mar. 31–Apr. 2 (2015)
- *2014 ASME International Conf. on Manufacturing Science and Engineering*, Detroit, MI, USA, 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, WI, USA, June 10–13 (2013)
- *2012 ASME International Conference on Manufacturing Science and Engineering,* Notre Dame, IN, USA, June 4–8 (2012)
- *2011 ASME International Conference on Manufacturing Science and Engineering,* Corvallis, OR, USA, June 13–17 (2011)
- *2010 ASME International Conference on Manufacturing Science and Engineering,* Erie, PA, USA, Oct. 12–15 (2010)

Memberships:

- American Society of Mechanical Engineers, ASME (since 2002)
- Society of Automotive Engineers, SAE (since 2012)
- North American Deep Drawing Group, NADDRG (since 2013)
- The Minerals, Metals and Materials Society, TMS (since 2016)
- Japan Society for Technology of Plasticity, JSTP (since 2019)
- Working group forming technology, AGU (since 2024)
- Member of the “German Cold Forging Group, GCFG (since 2024)

Memberships in Professional Societies’ Committees:

- Member of the Shaping & Forming Committee (since 2021–present)
  TMS – The Minerals, Metals and Materials Society
- Member of the Manufacturing Processes Technical Committee (since 2012–present)
  ASME Manufacturing Engineering Division

Internal service at The Ohio State University (partial list)

- Poster reviewer for ISE 4900 (Capstone class), 4/22/2020, 4/23/2021, 4/25/2023
- External examiner for ISE 3400 Project presentations - Smoker Grill (Prof. Aimee Ulstad), 10/5/2021

- Presenter of new ISE Manufacturing Track to ISE undergraduates, 3/23/2021, 9/23/2021, 11/4/2021
- Panelist at ISE Student Summer Internship Presentations, 8/30/2020, 9/3/2021
- Committee Member for BS Honors Thesis for Tu Feng on Data Analytics and Optim., SP 21
- Faculty Panelist at the ISE Graduate Open House, 10/26/2021
- Hosted ISE Graduate Seminar speakers: Eiichi Ota, Toyota (Feb. 2020); John Carsley, Novelis (Feb. 2020); Miki Banu, UMich (Dec. 2020); Robert Gao, CWRU (Mar 2021); Shubho Bhattacharia, Honda (Apr 2021); Kester Clarke, CSM (Apr 2021); Frank Pfefferkorn, UW-Madison (Apr 2021).
- Member of the ISE Graduate Studies Committee (AU 2020 - present)
- Member of the ISE Faculty Development Committee (AY 2020-21)
- Member of the ISE Academic Review Committee (AUR) (AU 20, SP 21, AU 21)
- Member of the ISE Chair's Advisory Committee (AY 2021-22)
- Member of the ISE Research Space Allocation Policy Committee (SP 23)
- Member of ISE URM Faculty Recruitment Committee (Summer 2021)
- Manufacturing Group Lead (AY 2020-21)
- Manufacturing P&T sub-committee for Profs. Michael Groeber (SP 2021) & Ali Nassiri (AY 2020-21)
- Manufacturing Group Lead (AY 2020-21)
- Teaching evaluation for Profs. Michael Groeber (AU 2019), Samantha Krening (SP 2021), Martjin Iitsma (SP 2021), Carolyn Sommerich (AU 2021) and Theodore Allen (SP 2022)
- Member of College Diversity & Inclusion Committee (AY 2019-20)
- Internal Reviewer for NSF CAREER proposals of OSU faculty (2 proposals) (SP 21)
- Internal reviewer for Ma2JIC Phase III renewal proposal to NSF, Aug 2020

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
- Multiple grad studies recruiting events for UNH seniors (e.g., Oct 23, 2015; Sept. 28, 2016; Sept. 14, 2018)
- 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, Sept. 21, 2018) and at the UNH ASME Student Chapter, etc.

Service at other Universities (partial list)

- **P&T reviewer** for 3 faculty promotion cases
- University of Thessaly, Greece: Member of 2 search committees (for Assoc. Prof and Assist. Prof.), May-Nov. 2020

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

2024 - present Director of IUL (Institute of Forming Technology and Lightweight Components)

2021 - 2023	Center Director for the NSF IUCRC Center for Industrial Metal Forming (proposal phase, currently funded; resigned due to moving to TU Dortmund)
2019 - present	Chair of the NUMIFORM Conference Steering Committee
2009 - 2018	Faculty advisor of the ASME Student Chapter Department of Mechanical Engineering University of New Hampshire
2009 - 2018	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