

Recent Conference Presentations (2008 – 2014)

1. S.A. Meguid, “Energy Absorption in Axial Crushing of Ultralight Structures”, 6th Int’l Conf. on Mechanics and Material in Design, Azores, Portugal, July 26-30, 2015. Keynote Lecture.
2. S.A. Meguid, “Multiscale Modelling of Multifunctional Nanocomposites: Challenges and Prospects”, 8th Australasian Congress on Applied Mechanics, Melbourne, Australia, November 23-26, 2014. Keynote Lecture.
3. S.A. Meguid and P. Roy, “Transient Response of Jet Engine Subject to Fan Blade-off”, ASME 2014 Int’l Mechanical Engineering Congress & Exposition, Montreal, Canada, November 14-20, 2014.
4. S.A. Meguid, “Multiscale Modelling of Multifunctional Nanocomposites”, ASME 2014 Int’l Mechanical Engineering Congress & Exposition, Montreal, Canada, November 14-20, 2014. Invited Presentation.
5. S.A. Meguid, “Multiscale Modelling of Multifunctional Nanocomposites for Aerospace Applications”, 39th Solid Mechanics Conf., Zakopane, Poland, September 1-5, 2014. Keynote Lecture.
6. C. Boyle and S.A. Meguid, “Finite Element Modeling of Copper Coated Used Fuel Containers for Long-Term Storage in a Deep Geological Repository”, 19th Pacific Basin Nuclear Conference, Vancouver, Canada, August 24-28, 2014.
7. S.A. Meguid, “Energy Absorption in Axial Crushing of Foam Filled Thin Walled Conical Frusta”, 11th World Congress on Computational Mechanics, Barcelona, Spain, July 20-25, 2014. Keynote Lecture.
8. S.A. Meguid and X.D. Wang, “Dynamic Interaction between Cracks and Inhomogeneities in Advanced Materials”, 20th European Conference on Fracture, Trondheim, Norway, June 30 – July 4, 2014.
9. J.M. Wernik and S.A. Meguid, “Multiscale Modeling of Nano-Reinforced Structural Adhesive Bonds”, ASME 2013 Int’l Mechanical Engineering Congress & Expo, San Diego, USA, November 15-21, 2013. Invited Presentation.
10. S.A. Meguid, F. Al Jahrawi and J.M. Wernik, “Effect of Nano-Reinforced Interfaces upon the Electro-Mechanical Behaviour of Multifunctional Nanocomposites”, 50th Annual Technical Meeting of Society of Engineering Science and ASME-AMD Annual Summer Meeting, Providence, USA, July 28– 31, 2013. Keynote Lecture.
11. S.A. Meguid, “Dynamic Contact in Continua using Variational Inequalities”, 4th Int’l Conf. on Integrity, Reliability and Failure, Funchal, Portugal, June 23-27, 2013. Plenary Lecture.

12. S.A. Meguid and X.D. Wang, "Elasto-Dynamic Analysis of Interacting Cracks and Inhomogeneities", 13th Int'l Conf. on Fracture, Beijing, China, June 16–21, 2013. Invited Presentation.
13. S.A. Meguid, F. Yang and Z. Chen, "3D FE Analysis of Shot-Peening of Strain-Rate Sensitive Materials Accounting for Multiple and Repeated Impingement", 13th Int'l Conf. on Fracture, Beijing, China, June 16–21, 2013.
14. F. Yang, Z. Chen, S.A. Meguid and M. Guagliano, "Realistic 3D FE Modelling of Peening Residual Stresses of Strain-Rate Sensitive Materials with Oblique Incident Angles", 2013 SEM Annual Conf. and Expo on Experimental and Applied Mechanics, Lombard, USA, June 3-5, 2013. Invited Presentation.
15. S. Gong, Z.H. Zhu and S.A. Meguid, "Deformed Carbon Nanotube Junction and its Effect on Electrical Conductivity of Carbon Nanotube Nanocomposites", 24th Canadian Congress of Applied Mechanics, Saskatchewan, Canada, June 2-6, 2013. Won 3rd place in Best Paper Award.
16. J.M. Wernik and S.A. Meguid, "The Coupled Electro-Mechanical Behaviour of Nanocomposites", NanoTech 2013, Maryland, USA, May 12-16, 2013.
17. S.A. Meguid, "Intelligent Adhesive Bond that Provides Early Warning System for Aircraft", Transportation Weight Loss Diet Conference, Boston, USA, October 24-25, 2012. Invited Speaker.
18. S.A. Meguid and J.M. Wernik, "Multifunctional Nano-Tailored Composites for In Situ Self-Health Monitoring of Aircraft Structures", 23rd Int'l Congress of Theoretical and Applied Mechanics, Beijing, China, August 19-24, 2012.
19. S.A. Meguid and F. Yang, "Scattering and Attenuation of Stress Wave from Multi-Phase Elastic Media", 23rd Int'l Congress of Theoretical and Applied Mechanics, Beijing, China, August 19-24, 2012.
20. S.A. Meguid, "Multifunctional Nano-tailored Adhesives for Self-health Monitoring of Aircraft", 15th Int'l Conf. on Experimental Mechanics, Porto, Portugal, July 22–27, 2012. Invited Plenary Lecture.
21. S.A. Meguid, J.M. Wernik and A.M. Hamouda, "On the Strength and Electrical Characteristics of Multifunctional Nanocomposites", 15th European Conf. on Composites Materials, Venice, Italy, June 24–28, 2012.
22. J.M. Wernik and S.A. Meguid, "Multiscale CNT Reinforced Composites", NanoTech 2012, Santa Clara, USA, June 18-21, 2012.

23. F. Sabri, S.A. Meguid and A.A. Lakis, "Flutter Response of a Morphing Wing for UAV", 53rd AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference, Honolulu, Hawaii, April 23-26, 2012.
24. S.A. Meguid, "Intelligent Adhesive Bonds that Provides Early Warning System for Structural Failure", ASC 2012 Spring Convention & Expo, Denver, Colorado, April 15-17, 2012. Invited Speaker.
25. S.A. Meguid, J.M. Wernik and A.M. Hamouda, "Multifunctional Nano-Reinforced Structural Adhesive Bonds for Aerospace Applications", Qatar Foundation Annual Research Forum, Doha, Qatar, November 20-22, 2011. Invited Keynote Speaker and Moderator.
26. B.J. Cornwell-Mott, J.M. Wernik and S.A. Meguid, "Atomistic-Based Continuum Modeling of the Interfacial Properties of Nanoreinforced Composites", United States Congress of Computational Mechanics (USNCCM 2011), Minneapolis, July 25-29, 2011.
27. F. Sabri and S.A. Meguid, "Aeroelastic Behavior of a Novel Morphing Wing using Shape Memory Alloy", AIAA Int'l Forum of Aeroelasticity and Structural Dynamics, Paris, France, June 26-30, 2011.
28. B.J. Cornwell-Mott, J.M. Wernik, S.A. Meguid, "Multiscale Modeling of the Interfacial Shear Strength of Nano-Reinforced Polymers", Sixth M.I.T. Conference on Computational Fluid and Solid Mechanics, Boston, June 15-17, 2011.
29. J.M. Wernik, B.J. Cornwell-Mott and S.A. Meguid, "Interfacial Shear Strengths of Carbon Nanotube Reinforced Polymer Composites", Nanotech Conference & Expo 2011, Boston, June 13-16, 2011.
30. S.A. Meguid, "Multifunctional Nano-Tailored Composites for Aerospace Applications: Trends and Prospects", 23rd Canadian Congress of Applied Mechanics, Vancouver, June 5-8, 2011. Invited Plenary Lecture.

Professor Meguid was awarded Certificate of Appreciation for his Exceptional Technical Contribution to 23rd CANCAM.

31. S.A. Meguid, "Prospects and Computational Contact Mechanics using Variational Inequalities", 23rd Canadian Congress of Applied Mechanics, Vancouver, Canada, June 5-8, 2011. Invited Keynote Speaker.
32. S.A. Meguid and P. Galantai, "Bio-Inspired Wing Morphing for Unmanned Aerial Vehicles using Intelligent Materials", Aerospace Technical Forum, Singapore, February 21-25, 2011. Invited Paper. Best Paper Award.
33. S.A. Meguid, Multifunctional Nanoreinforced Composites for Aerospace Applications, Int'l Conf. on Applied Mechanics, Materials, and Manufacturing, Muscat, Oman, December 13-15, 2010. Invited Keynote Speaker.

34. S.A. Meguid, "Computational Contact Mechanics using Variational Inequalities: Trends and Prospects", Int'l Conf. on Computational Mechanics, Zhangjiajie, China, November 19-21, 2010. Invited Keynote Speaker.
35. S.A. Meguid, "Innovations in the Undergraduate Mechanical Engineering Curriculum", ASME Mech. Eng. Congress & Expo. (IMECE), Vancouver, Canada, November 12-18, 2010. Invited Distinguished Panellist.
36. J.M. Wernik and S.A. Meguid, "Multiscale Modelling of Nano-Reinforced Composites", ASME Int. Mechanical Engineering Congress & Expo. (IMECE), Vancouver, November 12-18, 2010. Invited to Special Session on Nanoengineering.
37. S.A. Meguid, "Crashworthiness of Foam Filled Structures: Modelling and Characterisation", SEM-IMPLAST 2010, Rhode Island, USA, October 12 - 14, 2010.
38. B. Larouche, Z.H. Zhu and S.A. Meguid, "Development of Autonomous Robot for Space Servicing", IEEE Mechatronics and Automation 2010, Xi'an, China, August 4-7, 2010.
39. S.A. Meguid and X.D. Wang, "Dynamic Electromechanical Behaviour of Interacting Piezoelectric Actuators", 16th US National Congress on Theoretical and Applied Mechanics, Penn. State, PA, USA, June 27 - July 2, 2010. Invited Speaker.
40. J. Wernik and S.A. Meguid, "Multiscale Atomistic-Based Continuum Modelling of Nanocomposites", Nanotech'10, Anaheim, USA, June 21-25, 2010. Invited Speaker.
41. S.A. Meguid, "Nanoreinforced Interfaces in Advanced Composites: Trends & Prospects", Symposium on Design in Nanospace, University of Tokyo, Japan, June 1-5, 2010. Invited Keynote.
42. S.A. Meguid, "Multiscale Modelling of Nanoreinforced Adhesives Bonds", Integrity, Reliability and Failure, Portugal, July 20-24, 2009. Plenary Lecture.
43. M. Post, Z.H. Zhu, S.A. Meguid, "Nondestructive Evaluation of Stress using Ultrasonic Leaky Lamb Waves", 22nd Canadian Congress of Applied Mechanics, Halifax, Canada, May 31 – June 4, 2009.
44. Z.H. Zhu and S.A. Meguid, "On the Dynamic Stability of Aerial Refueling Hose/Drogue System", AERO 2009, Kanata, Ontario, Canada, May 5-7, 2009.
45. S.A. Meguid, "Multiscale Modelling of Nanoreinforced Interfaces", Nanotech 2009, Houston, Texas, May 4-6, 2009. Invited by Lockheed Martin.
46. J.M. Wernik and S.A. Meguid, "Atomistic Modelling of Nanocomposites", Nanotech'09, Texas, May 4-6, 2009. Invited by Lockheed Martin's Symposium on Innovation in Nanoengineering.

47. J.M. Wernik and S.A. Meguid, "3D Nonlinear Atomistic Based Continuum Model of Nanoreinforced Composites", ASME Int'l Mechanical Engineering Congress, Boston, Massachusetts, USA, October 31-November 6, 2008. Awarded Best Innovative Paper by ASME.
48. S.A. Meguid and X.D. Wang, "Consistent and Accurate Formulation of the Dynamic Behaviour of Smart Structures", ASME Int'l Mechanical Engineering Congress, Boston, Massachusetts, USA, October 31-November 6 2008. Invited paper to celebrate the 60th birthday of John Hutchinson, Harvard University.
49. Z.H. Zhu, S.A. Meguid, "Dynamic Stability Analysis of Aerial Refueling Hose/Drogue System by Finite Element Method", 2008 ASME Int'l Mechanical Engineering Congress and Exposition, Boston, Massachusetts, USA, October 31-November 6, 2008.
50. S.A. Meguid, "Modelling and Characterisation of the Crush Behaviour of Foam Filled Structures", ASME Int'l Mechanical Engineering Congress, Boston, October 31-November 6, 2008. Invited paper.
51. S.A. Meguid and J.M. Wernik, "Nano-Reinforced Interfaces: Opportunities and Challenges", ASME Int'l Mechanical Engineering Congress, Boston, October 31-Nov 6, 2008.
52. S.A. Meguid, "Computational Nanomechanics: Trends and Prospects", 5th International Applied Mechanics Congress, Mozambique, September 1-4, 2008.
53. S.A. Meguid, "Anomalies in Dynamic Modelling of Collapsible Tubes", 5th International Conference on Impact and Crashworthiness of Structures, Oslo, Norway, June 17-20, 2008.
54. S.A. Meguid, "Three Dimensional FE Modelling of Birdstrike", 5th International Conference on Impact and Crashworthiness of Structures, Oslo, Norway, June 17-20, 2008.