

ASTEC Publications

Updated: February 2023

1. Feng C, Haniffa H, Rozenblit J, Hamilton A, Salkini M (2006): Surgical Training and Performance Assessment Using a Motion Tracking System. Proc. Int. Med. Modeling Multiconference, 1, 647-652.
2. Feng C, Rozenblit J, Hamilton A (2007): A Hybrid View in a Laparoscopic Surgery Training System. Proceedings of the IEEE. International Conference and Workshops on the Engineering of Computer-Based Systems.7, 3-7
3. Haniffa H, Rozenblit J, Peng J, Hamilton A, Salkini M (2007): Motion Planning System for Minimally Invasive Surgery. Proceedings of the IEEE: International Conference and Workshops on the Engineering of Computer-Based Systems, 7, 1-2.
4. Feng C, Rozenblit JW, Hamilton AJ (2010): A Computerized Assessment to Compare the Impact of Standard, Stereoscopic, and High-Definition Laparoscopic Monitor Displays on Surgical Technique; Surgical Endoscopy, 24, 2743-2748.
5. Rojas M, Feng C, Hamilton AJ, Rozenblitt J (2010). Knowledge Elicitation for Performance Assessment in a Computerized Training System, Applied Soft Computing, (10), 1-12.
6. Latifi R, Dehdashti B, Biffar DE, Ong E, Jie T, Galvani C, Waer A, Gruessner R. Intensive Laparoscopic Training Course for Surgical Residents: Program Description and Initial Results. Surgical Endoscopy, 25(7), July 2011.
7. Thompson JL, Grisham LM, Scott J, Mogan C, Prescher H, Biffar DE, Jarred J, Meyer RJ, Hamilton AJ. Construction of a Reusable High-Fidelity Model to Enhance Extracorporeal Membrane Oxygenation Training Through Simulation. Advances in Neonatal Care, 14(2), pp. 103-109. 2014
8. Prescher H, Biffar DE, Galvani CA, Rozenblit JW. Hamilton A.J. Evaluation of a Navigation Grid to Increase the Efficacy of Instrument Movement During Laparoscopic Surgery. Laparoendosc Adv Surg Tech, 2014, July 10
9. J.W. Rozenblit, C. Feng, M. Riojas, L. Napalkova, A. Hamilton, M. Hong, P. Berthet-Rayne, P. Czapiewski, G. Hwang, J. Nikodem, A. Shankaran and A. Rao (2014): "The Computer Assisted Surgical Trainer: Design, Models, and Implementation," Proceedings of the 2014 Summer Simulation Conference, Modeling and Simulation in Medicine, pages 211-220, Pasadena, CA July 2014.
10. Prescher H, Biffar DE, Galvani CA, Rozenblit JW, Hamilton AJ. Surgical Navigation Pointer facilitates Identification of Targets in a Simulated Environment. Proceedings Computer Simulation Multiconference, Summer 2014 (SCSC'14), Society for Modeling & Simulation International.
11. Prescher H, Biffar DE, Rozenblit JW, Hamilton AJ. The comparison of High Definition Versus Stereoscopic Display on Standardized Fundamental Laparoscopic Skill Procedures. Proceedings Computer Simulation Multiconference, Summer 2014 (SCSC'14), Society for Modeling & Simulation International.
12. Prescher H, Biffar DE, Meinke LE, Jarred JE, Brooks AJ, Hamilton AJ. Video-guided Direct laryngoscopy: Consideration for using Simulation to Teach Inexperienced Medical Students. Proceedings Computer Simulation Multiconference, Summer 2014 (SCSC'14), Society for Modeling & Simulation International.

13. Prescher H, Grover E, Mosier J, Stolz U, Biffar DE, Hamilton AJ, Sakles JC. Telepresent Intubation Supervision is as Effective as In-Person Supervision of Procedurally Naive Operators. *Telemed J E Health*, 2014.
14. Napalkova L, Rozenblitt JW, Hwang G, Hamilton AJ, Suantak L (2014): An Optimal Motion Planning Method for Computer-Assisted Surgical Training. *Applied Soft Computing* (Volume & Number Pending), p. 1-15.
15. J. Nikodem, A. Wytyczak-Partyka, R. Klemous and J. Rozenblit (February 2015): Prototyping a laparoscopic skill trainer based on virtual reality and image processing, *Proceedings of the 15th International Conference on Computer-Aided Systems Theory*, pages 135-136, Las Palmas, Spain, doi: 10.13140/RG.2.1.1784.6641.
16. Hamilton AJ, Prescher H, Biffar DE, Poston R. Simulation Trainer for Practicing Emergent Open Thoracotomy Procedures., *J Surg Res*, 2015 Apr 17
17. L. Napalkova, J.W. Rozenblit, G. Hwang, A. Hamilton and L. Suantak (2014): An Optimal Motion Planning Method for Computer-Assisted Surgical Training, *Applied Soft Computing*, 24(11), pp. 889-899, 2014, doi:10.1016/j.asoc.2014.08.054
18. Amini R, Kartchner JZ, Stolz L, Biffar DE, Hamilton AJ, Adhikari S. A novel and inexpensive ballistics gel phantom for ultrasound training., *World J Emerg Med*, Vol 6, No 3, 2015
19. Grisham LM, Vickers V, Biffar DE, Prescher H, Battaglia NJ, Jarred JE, Reid SAH, Hamilton AJ. Feasibility of Air Transport Simulation Training: A Case Series, *Air Medical Journal*, Vol 35, Issue 5, 2016
20. M. Hong, A. Hamilton, and J.W. Rozenblit (April 2016): Modeling of a Transfer Task in Computer Assisted Surgical Training, *Proceedings of the 2016 Spring Simulation Conference, Modeling and Simulation in Medicine*, pages 794-799, doi: 10.13140/RG.2.1.3357.5284.
21. Hong M, Rozenblit JW, Hamilton AJ (2017): A Simulation-Based Assessment System for Computer-Assisted Surgical Training, in *Proceedings of the 2017 Spring Simulation Conference on Modeling and Simulation in Medicine (SpringSim-MSM)*, pp. 834-844, 2017, Virginia Beach, VA
22. Ng V, Plitt J, Biffar DE. Development of a Novel Ultrasound Peritonsillar Abscess Model for Simulation Training. *West J Emerg Med*. 2018 19;1:172-6
23. H. Prescher, A. Hamilton and J.W. Rozenblit, "Systems Design, Modeling, Simulation in Medicine," in: *Guide to Simulation-Based Disciplines, Simulation Foundations, Methods and Applications*, (Eds. S. Mittal et al.), Springer International Publishing, pp. 209-234, July 2017, doi: 10.1007/978-3-319-61264-5_10.
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26. Peng, Kuo Shiuan, Minsik Hong, Jerzy Rozenblit, and Allan J. Hamilton. "Single shot state detection in simulation-based laparoscopy training." In *Proceedings of 2019 Spring Simulation Conference (SpringSim 2019)*. Doi: 10.23919/SpringSim.2019.8732863
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28. Collins C, Biffar DE, Lovett M, Holder K, Yonsetto P, Holcomb M, Weinstein R, Hamilton A. The Use of Remote and Traditional Facilitation to Evaluate Telesimulation to Support Interprofessional Education and Processing in Healthcare Simulation Training. Proceedings for SpringSim 2019, The Society for Modeling & Simulation International, IEEE Xplore, ISBN: 978-1-7281-3547-2, Jun. 10, 2019.
29. Hamilton AJ, Biffar DE, Lovett M, Rozenblit J, Weinstein R, Kanda, J. When Hollywood Inspires Medicine: New Concepts in the Design and Architecture of Medical Simulation Facilities to Support Inter-Professional Healthcare Education and Training. Proceedings for SpringSim 2019, The Society for Modeling & Simulation International, IEEE Xplore, ISBN: 978-1-7281-3547-2, Jun. 10. 2019
30. Srikar A, Situ-LaCasse E, Acuna J, Irving S, Weaver C, Samsel K, Biffar DE, Motlagh M, Sakles J. (2020) Integration of Pre-intubation Ultrasound into Airway Management Course: A Novel Training Program. Indian J Crit Care Med., 24(3), 1789-183, March, 2020
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34. Katz, J., Hua, H., Lee, S. et al. A dual-view multi-resolution laparoscope for safer and more efficient minimally invasive surgery. Sci Rep 12, 18444 (2022). <https://doi.org/10.1038/s41598-022-23021-2>

ASTEC Abstracts

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35. Hamilton AJ, Rozenblit J, Moore E, Feng C, Huang Z, Biffar DE. Determining Surgical Hand Dominance. Poster Presented at the Association of Surgeons in Training Surgical Conference, Kingston-upon-Hull, England, March 12-14, 2010
36. Biffar DE, Hamilton AJ, Grisham L, Jarred J, Prescher H, Brooks A, Meinke L. For the Inexperienced, Video Laryngoscopy is Superior to Direct Laryngoscopy for Airway Management Training. Poster Presented at the 12th International Meeting on Simulation in Healthcare (IMSH), San Diego, CA, Jan. 27 – Feb. 1, 2012.
37. Grover E, Mendelson J, Valdez S, Biffar DE, Hamilton AJ, Grisham L, Jarred J, Prescher H, Theodorou A. IPE PICU Simulation Training Program. Poster Presented at the 12th International Meeting on Simulation in Healthcare (IMSH), San Diego, CA, Jan. 27 – Feb. 1, 2012.
38. Biffar DE, Jarred J, Prescher H, Culliney S, Grisham L, Hamilton AJ. Improving Quality of Care by Training First Responders with High-fidelity Medical Simulations. Poster presented at the Annual Arizona Rural Health Conference. Tucson, AZ, Sept. 14, 2012

39. Hamilton AJ, Souza A, Biffar DE. Future Trends in Design of Clinical Simulation Facilities – Maximum Utilization Through Minimalist Design. Video abstract presented at the Association of American Medical Colleges Annual Meeting, San Francisco, CA, Nov. 2 – 7, 2012
40. Prescher H, Biffar DE, Galvani C, Hamilton AJ. The Comparison of High Definition versus Stereoscopic Display on Standardized Fundamental Laparoscopic Skill Procedures. Poster Presented at the International Meeting for Simulation in Healthcare (IMSH), Orlando, FL, Jan. 26 – 30, 2013
41. Biffar DE, Poston R, Prescher H, Muzzy A, Hamilton AJ. Developing a Task Trainer to Improve Interprofessional Skills During Robotic Cardiothoracic Surgery. Presented at the International Meeting for Simulation in Healthcare, Orlando, FL, Jan. 26 – 30, 2013
42. Prescher H, Biffar DE, Tomasa L, Berg M, Grisham L, Hamilton AJ. Breaking Barriers in Health Care Education: The Impact of Interprofessional CPR Training. Poster Presented at the 2013 Association of American Medical Colleges Annual Meeting, Philadelphia, PA, Nov. 1 – Nov. 6, 2013.
43. Grover E, Mosier J, Sakles J, Prescher H, Biffar DE, Stolz U. Telepresent intubation instruction is as effective as in-person when instructing naïve intubators. 14th International Meeting on Simulation in Healthcare (IMSH), Jan. 25 – 29, 2014
44. Prescher H, Biffar DE, Tomasa L, Berg M, Grisham L, Mathesen Y, Theodorou A, Hamilton AJ. A seven-year collaboration between 3 colleges to learn interprofessional skills during a CPR team behavior simulation. 14th International Meeting on Simulation in Healthcare (IMSH), Jan 25 – 29, 2014
45. Dreifuss B, Prescher H, Biffar DE, Hamilton, AJ. Developing a novel drain loop abscess model for training intern ED residents. 14th International Meeting on Simulation in Healthcare (IMSH), Jan. 25 – 29, 2014
46. Frazier A, Prescher H, Biffar DE, Hamilton AJ. Using rotational casting techniques to create hollow viscous organs. 14th International Meeting on Simulation in Healthcare (IMSH), Jan. 25-29, 2014
47. Ng V, Prescher H, Reid S, Biffar DE, Hamilton A. A Comparison of Porcine and Synthetic Models for Lateral Canthotomy and Cantholysis Work in Progress. Presented at the 15th Annual International Meeting for Simulation in Healthcare (IMSH), San Diego, Jan 16-20, 2016
48. Lovett MK, Reid S, Prescher H, Biffar DE, Fiorello AB, Hamilton AJ. Development and Testing of a Thoracostomy Assessment Tool through Self, Peer, and Expert Evaluation in a Simulation Environment. Poster Presented at the 15th Annual International Meeting for Simulation in Healthcare (IMSH), San Diego, Jan 16-20, 2016
49. Ng V, Prescher H, Barbosa A, Biffar DE, Hamilton A. Development of an Ultrasound Pericardiocentesis Model for Simulation Training. Presented at the 15th Annual International Meeting for Simulation in Healthcare (IMSH), Orlando, FL Jan 28-31, 2017
50. Abd El Aziz MA, Cahir TM, Biffar DE, Hamilton, AJ, Ghaderi, I. Asynchronous Telementoring in Proficiency-based Training in the Fundamentals of Laparoscopic Surgery (FLS) Skills: Use of Smartphones and Deliberate Practice. iPoster Presentation at the Society of American Gastrointestinal and Endoscopic Surgeons (SAGES) Annual Meeting, Houston, TX, Mar. 22-25, 2017
51. Ng V, Plitt J, Biffar DE. Ultrasound Peritonsillar Abscess Model. Presented at the Spectrum of Ideas Showcase for the 16th Annual International Meeting for Simulation in Healthcare (IMSH), Los Angeles, CA, Jan 13-17, 2018

52. Situ-LaCasse EH, Samsel K, Weaver C, Motlagh M, Biffar DE, Adhikari S. Can Nurse Practitioner Students Learn Point-of-Care Ultrasound Applications after One-Day Training Session? Poster presented at the American Institute of Ultrasound in Medicine, Orlando, FL, April 6 – 10, 2019
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