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Image-Guided Procedures, Robotic Interventions, and Modeling

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Robert J. Webster III**

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Robert F. Wagner Best Student Paper Award

Robert F. Wagner was an active scientist in the SPIE Medical Imaging meeting, starting with the first meeting in 1972 and continuing throughout his career. He ensured that the BRH, and subsequently the CDRH, was a sponsor for the early and subsequent Medical Imaging meetings, helping to launch and ensure the historical success of the meeting. The Robert F. Wagner All-Conference Best Student Paper Award (established 2014) is acknowledgment of his many important contributions to the Medical Imaging meeting and his many important advances to the field of medical imaging.



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2018 Recipients:

First Place: **Dynamic beam filtering for miscentered patients** (10573-29)

Andrew Mao, William Shyr, Grace J. Gang, J. Webster Stayman, Johns Hopkins Univ. (United States)

Second Place: **Tumor margin classification of head and neck cancer using hyperspectral imaging and convolutional neural networks** (10576-4)

Martin Halicek, Georgia Institute of Technology (United States) and Augusta Univ. (United States); James V. Little, Xu Wang, Emory Univ. School of Medicine (United States); Mihir Patel, Emory Univ. School of Medicine (United States) and The Winship Cancer Institute of Emory Univ. (United States); Christopher C. Griffith, Emory Univ. School of Medicine (United States); Amy Y. Chen, Emory Univ. School of Medicine (United States) and The Winship Cancer Institute of Emory Univ. (United States); Baowei Fei, Georgia Institute of Technology & Emory Univ. (United States) and The Winship Cancer Institute of Emory Univ. (United States)

Conference Awards

Image-Guided Procedures, Robotic Interventions, and Modeling Young Scientist Awards sponsored by Siemens Healthineers

Winner: Paper 10576-51, "Intra-operative 360° 3D transvaginal ultrasound guidance during high-dose-rate interstitial gynecologic brachytherapy needle placement"

J. R. Rodgers, Western Univ. (Canada) and Robarts Research Institute (Canada); J. Bax, Robarts Research Institute (Canada); V. Velker, K. Surry, D. D'Souza, London Regional Cancer Program (Canada); E. Leung, Odette Cancer Ctr. (Canada); A. Fenster, Western Univ. (Canada) and Robarts Research Institute (Canada)

Runner-up: Paper 10576-53, "Validation of cochlear implant electrode localization techniques"

Y. Zhao, Vanderbilt Univ. (United States); R. F. Labadie, Vanderbilt Univ. Medical Ctr. (United States); B. M. Dawant, J. H. Noble Sr., Vanderbilt Univ. (United States)

Runner-up: Paper 10576-56, "3D tissue mimicking biophantoms for ultrasound imaging: bioprinting and image analysis"

S. Azizi, S. Bayat, The Univ. of British Columbia (Canada); A. Rajaram, Queen's Univ. (Canada); E. Anas, Johns Hopkins Univ. (United States); T. Mohamed, K. Walus, Aspect Biosystems Ltd. (Canada); P. Abolmaesumi, The Univ. of British Columbia (Canada); P. Mousavi, Queen's Univ. (Canada)

Image-Guided Procedures, Robotic Interventions, and Modeling Poster Presentation Awards sponsored by Northern Digital Imaging

Cum Laude: Paper 10576-99, "CT-ultrasound deformable registration for PET-determined prostate brachytherapy"

J. Lee, D. Y. Song, Johns Hopkins Univ. (United States)

Honorable Mention: Paper 10576-61, "Real-time workflow detection using webcam video for providing real-time feedback in central venous catheterization training"

R. Hisey, T. Ungi, M. Holden, Z. Baum, Z. Keri, Queen's Univ. (Canada); C. McCallum, D. W. Howes, Kingston General Hospital (Canada); G. Fichtinger, Queen's Univ. (Canada)

Honorable Mention: Paper 10576-86, "Distant pulse oximetry based on skin region extraction and multi-spectral measurement"

C. Herrmann, Fraunhofer-Institut für Optronik, Systemtechnik und Bildauswertung (Germany) and Karlsruhe Institute of Technology (Germany); J. Metzler, D. Willersinn, Fraunhofer-Institut für Optronik, Systemtechnik und Bildauswertung (Germany); J. Beyerer, Fraunhofer-Institut für Optronik, Systemtechnik und Bildauswertung (Germany) and Karlsruhe Institute of Technology (Germany)