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## Congratulations to the 2017 Robert F. Wagner Best Student Paper Award Recipients

Sponsored by:



**SPIE.**

1st Place

**Adrian F. Howansky**, Stony Brook Univ. (USA)

Direct measurement of Lubberts effect in CsI:Tl scintillators using single x-ray photon imaging. [10132-8]

Runner Up

**Ahmet Cakir**, Vanderbilt Univ. (USA)

Evaluation of a high-resolution patient-specific model of the electrically stimulated cochlea [10135-21]

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## Congratulations to the Conference Award Winners

### 2017 Physics of Medical Imaging Student Paper Awards

This student paper award is for first authors of high quality papers within the Physics of Medical Imaging conference.

Sponsored by:

**Carestream**

1st Place

**Adrian F. Howansky**, Stony Brook Univ. (USA)

Direct measurement of Lubberts effect in CsI:Tl scintillators using single x-ray photon imaging. [10132-8]

Runner Up

**Martin Sjöli**, KTH Royal Institute of Technology (Sweden)

Optimal sinogram sampling with temporally offset pixels in continuous rotation CT [10132-90]

Runner Up

**Lucas Borges**, Escola de Engenharia de Sao Carlos, Univ. de São Paulo (Brazil)

Pipeline for effective denoising of digital mammography and digital breast Tomosynthesis [10132-5]

## 2017 Image-Guided Procedures, Robotic Interventions, and Modeling

### Young Scientist Awards

The young scientist award is for first authors of high quality papers who are early career scientists.

Sponsored by:



1st Place

**Michael Ketcha**, Johns Hopkins Univ. (USA)

Fundamental limits of image registration performance: effects of image noise and resolution in CT-guided interventions [10135-7]

Runner Up

**Ahmet Cakir**, Vanderbilt Univ. (USA)

Evaluation of a high-resolution patient-specific model of the electrically stimulated cochlea [10135-21]

Runner Up

**Haichong Zhang**, Johns Hopkins Univ. (USA)

Toward dynamic lumbar punctures guidance based on single element synthetic tracked aperture ultrasound imaging [10135-18]

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### PARTICIPATE IN A POSTER SESSION

Gain valuable feedback and one-on-one networking with colleagues.

NOTE: Papers accepted in the program and presented during the poster session are eligible for award consideration.

Each conference review committee recognizes a selected poster at the cum laude level for best poster presentation in their conference.

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### Congratulations to the 2016 Poster Award Winners

#### Physics of Medical Imaging (Conference 10132)

Sponsored by:



Cum Laude

**Kazuki Shigeta**, Toray Industries, Inc. (Japan)

High spatial resolution performance of pixelated scintillators [10132-145]

Honorable Mention

**Sunay Rodríguez Pérez**, SCK CEN (Belgium)

Validation study of the thorax phantom Lungman for optimization purposes [10132-191]

Honorable Mention

**Juliana Gomes**, Johns Hopkins Univ. (USA)

An investigation of low-dose 3D scout scans for computed tomography [10132-94]

Honorable Mention

**Kevin C. Zimmerman**, Marquette Univ. (USA)

Empirical neural network forward model for maximum likelihood material decomposition in spectral CT [10132-139]

Honorable Mention

**Ai Nakajima**, Nagoya Univ. (Japan)

Detection of microcalcifications and tumor tissue in mammography using a CdTe-series photon-counting detector [10132-154]

Honorable Mention

**Elena Eggl**, Technische Univ. München (Germany)

Mono-energy coronary angiography with a compact light source [10132-168]

Honorable Mention

**Ronen D. Lifshitz**, Check-Cap Ltd. (Israel)

Phantom system for intraluminal x-ray imaging of the human colon

Honorable Mention

**Jian Dong**, Univ. of Tsukuba (Japan)

Investigation into image quality difference between total variation and nonlinear sparsifying transform based compressed sensing [10132-109]

#### Image Processing (Conference 10133)

NOTE: Only student papers are considered for the award in this conference.

Cum Laude

**Koen Eppenhof**, Technische Univ. Eindhoven (Netherlands)

Supervised local error estimation for nonlinear image registration using convolutional neural networks [10133-66]

Honorable Mention

**Kensuke Umehara**, Osaka Univ. (Japan)

Super-resolution convolutional neural network for the improvement of the image quality of magnified images in chest radiographs [10133-61]

Honorable Mention

**Jianing Wang**, Vanderbilt Univ. (USA)

Automatic selection of landmarks in T1-weighted head MRI with regression forests for image registration initialization [10133-96]

#### Computer-Aided Diagnosis (Conference 10134)

Cum Laude

**Noha Ghatwary**, Univ. of Lincoln (UK) & Arab Academy of Science and Technology & Maritime Support (Egypt)

Automatic grade classification of Barrett's esophagus through feature enhancement [10134-109]

Honorable Mention

**Karem D. Marcomini**, Univ. de São Paulo (Brazil)

Agreement between a computer-assisted tool and radiologists to classify lesions in breast elastography images [10134-97]

Honorable Mention

**Ryusuke Watanabe**, Gifu Univ. School of Medicine (Japan)

Automated detection of nerve fiber layer defects on retinal fundus images using fully convolutional network for early diagnosis of glaucoma [10134-114]

Honorable Mention

**Shuang Liu**, Cornell Univ. (USA)

Individual bone structure segmentation and labeling from low-dose chest CT [10134-146]

Image-Guided Procedures, Robotic Interventions, and Modeling (Conference 10135)

Sponsored by:



Cum Laude

**Xiaochen Yang**, Vanderbilt Univ. (USA)

Integrated system for point cloud reconstruction and simulated brain shift validation using tracked surgical microscope [10135-87]

Honorable Mention

**Pooneh Roshani**, Children's National Medical Ctr. (USA)

Temporal bone dissection simulator for training pediatric otolaryngology surgeons [10135-95]

Honorable Mention

**Christina Yan**, Queen's Univ. (Canada)

Study into needle displacement during navigated breast cancer surgery [10135-79]

Image Perception, Observer Performance, and Technology Assessment (Conference 10136)

Cum Laude

**Scott D. Wollenweber**, GE Healthcare (USA)

A phantom design and assessment of lesion detectability in PET imaging [10136-48]

Honorable Mention

**Andriy I. Bandos**, Univ. of Pittsburgh (USA)

On analyzing free-response data on location level [10136-88]

Biomedical Applications in Molecular, Structural, and Functional Imaging (Conference 10137)

Cum Laude

**Ruofei Bu**, The Univ. of North Carolina at Chapel Hill (USA)

Anatomic optical coherence tomography for dynamic imaging of the upper airway [10137-58]

Honorable Mention

**Hirokai Matsuda**, Kanazawa Univ. (Japan)

Computerized method to compensate for breathing body motion in dynamic chest radiographs [10137-61]

Honorable Mention

**Rohini Vidya Shankar**, Arizona State Univ. (USA)

Undersampling strategies for compressed sensing accelerated MR spectroscopic imaging [10137-91]

Imaging Informatics for Healthcare, Research, and Applications (Conference 10138)

Cum Laude

**Hsaio-Chuan Liu**, Univ. of Southern California (USA) and Children's Hospital Los Angeles (USA)

Differentiating malignant from benign breast tumors on acoustic radiation force impulse imaging using fuzzy-based neural networks with principle component analysis [10138-48]

Honorable Mention

**Xinhua Cao**, Boston Children's Hospital (USA)

DICOM image quantification secondary capture (DICOM IQSC) integrated with numeric results, regions, and curves: implementation and applications in nuclear medicine [10138-38]

Ultrasonic Imaging and Tomography (Conference 10139)

Cum Laude

**Xiaolei Qu**, The Univ. of Tokyo (Japan)

Limb muscle sound speed estimation by ultrasound computed tomography excluding receivers in bone shadow [10139-46]

Honorable Mention

**Johannes Rebling**, Helmholtz Zentrum München (Germany)

Broadband optoacoustic characterization of cMUT and PZT transducer directivity in receive mode [10139-55]

Digital Pathology (Conference 10140)

Cum Laude

Ali R.N. Avanaki, Barco, Inc. (USA)

Panning artifacts in digital pathology images [10140-34]

Honorable Mention

Peter J. Lawson, Tulane Univ. (USA)

Topological descriptors for quantitative prostate cancer morphology analysis [10140-33]