

## SPIE-2017 Live Demo Workshop

### **1. New high-resolution imaging technology; application of advanced radar technology for medical imaging.**

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### **2. Live Demonstration for a Deep-learning Based Prostate Cancer Detection on Multiparametric MR Images**

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### **3. RHINO-Retinal Health Information and Notification System**

Behdad Dashtbozorg<sup>a</sup>, Jiong Zhang<sup>a</sup>, Samaneh Abbasi-Sureshjani<sup>a</sup>, Fan Huang<sup>a</sup>, and Bart M. ter Haar Romeny<sup>b,a</sup>

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### **4. Demonstration of an interactive computer-aided scheme for quantification of intracranial radiologic markers on brain CT images**

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### **5. MedXViewer: An extensible web-enabled software package for remote medical image viewing, perception studies and reader training**

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### **6. Medical Image Registration with SimpleElastix**

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### **7. Demonstration of an interactive Computer-aided scheme for computing total psoas area and muscle attenuation radiation**

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**8. An Interactive Online Segmentation Plugin for the Medical Imaging Interaction Toolkit (MITK)**

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**9. Automatic Medical Image Registration using elastix and 3D Slicer**

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**10. Cancer Imaging Phenomics Toolkit (CapTk): A Software Suite for Computational Oncology & Radiogenomic Analysis**

Sarthak Pati, Saima Rathore, Ratheesh Kalarot, Patmaa Sridharan, Mark Bergman, Ragini Verma, Despina Kontos, Yong Fan, Paul Yushkevich, Taki Shinohara, Christos Davatzikos  
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**11. Breast Radiology Assistant**

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**12. Pylidc - A python module to enhance workflow associated with the LIDC dataset**

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**13. MediBoost: An automated and interpretable tool for accurate patient stratification**

José Marcio Luna, Gilmer Valdes, Charles B. Simone II, Lyle H. Ungar, Eric Diffenderfer and Timothy D. Solberg.  
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**14. A semi-automated software for breast density estimation in breast MRI**

Dong Wei and Despina Kontos  
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**15. The effect of display brightness on reading of lung CT images**

Ali Avanaki<sup>a</sup>, Kathryn Espig<sup>a</sup>, Albert Xthona<sup>a</sup>, and Frédérique Chesterman<sup>b</sup>

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**16. Autonomous Surgical Lamps**

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**17. CAFUR – Cardiac Function Analysis for real-time MR Images**

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**18. OpenVCT – Simulation Platform for Open Source Design and Performing Virtual Clinical Trials of Breast Imaging**

Predrag R. Bakic, David Higginbotham, Bruno Barufaldi, and Andrew D.A. Maidment (Univ. Pennsylvania, Philadelphia, PA)  
David, D. Pokrajac (Delaware State Univ., Dover, DE)  
Ali N. Avanaki, Albert Xthona, Kathryn S. Espig, and Tom R.L. Kimpe (Barco Healthcare, Beaverton, OR and Kortrijk, Belgium)  
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**19. QuantImage: An Online Tool for High-Throughput 3D Radiomics Feature Extraction in PET-CT.**

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**20. Imaging data colocation and distributed automated processing with XNAT**

Shunxing Bao<sup>1</sup>, Shikha Chaganti<sup>1</sup>, Bennett Landman<sup>2</sup>  
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**21. CIRRUS Pathology: a workflow solution for the identification of cancer metastases in sentinel lymph nodes**

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**22. Open Source Tools for Image Processing in Spectral Computed Tomography**

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**23. A Multimodal Workstation for Analysis of Retinal Images**

Bart Liefers<sup>1</sup>, Nadine Traulsen<sup>2</sup>, Stefan Heldmann<sup>2</sup>, Freerk G. Venhuizen<sup>1</sup>, Thomas Theelen<sup>1</sup>, Carol Hoyng<sup>1</sup>, Bram van Ginneken<sup>1,2</sup>, and Clara I. S\_anchez<sup>1</sup>

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**24. CIRRUS Oncology: Optimizing the oncologic reading workflow using deep learning**

Gabriel Humpire<sup>1</sup>, Horst Hahn<sup>2</sup>, Stefan Heldmann<sup>3</sup>, Lars Konig<sup>3</sup>, Jan Ruhaak<sup>3</sup>, Markus Harz<sup>2</sup>, Bram van Ginneken<sup>1,2</sup>, and Colin Jacobs<sup>1</sup>

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**25. The MITK Workbench – an open-source application and development platform for visualization, segmentation and registration of medical imaging data**

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**26. MiViewer: Interface for Computer-aided Decision Support and Observer Performance Evaluation of Bladder Cancer Treatment Response Assessment**

Kenny Cha, Lubomir Hadjiiski, Heang-Ping Chan, Ravi K. Samala, Chuan Zhou, Jun Wei  
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**27. Deep-learning CNN for detection of masses in digital breast tomosynthesis using MiViewer**

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**28. Automatic Prostate Segmentation in Targeted MRI-Guided Biopsy with Deep Convolutional Neural Networks**

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**29. An objective 3D model of the shape of compressed breasts undergoing mammography or breast tomosynthesis**

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