



## RSNA 2018 Presentation List

### – Monday –

#### Scientific Paper

**Title:** Radiation Dose Reduction in Digital Breast Tomosynthesis (DBT) by Means of Neural Network Convolution (NNC) Deep Learning

**Authors:** J Liu, MS, Chicago, IL; A Zarshenas, MSc; S Qadir; L Yang, MD, PhD; L L Fajardo, MD, MBA; K Suzuki, PhD

**Time and Place:** Mon Nov 26 2018 3:00PM - 3:10PM ROOM S502AB

**Session Name:** Physics, Applied Science (AS Tomosynthesis X-ray Imaging)

#### Education Exhibit

**Title:** Deep Learning Techniques for Automated Segmentation of Diffuse Lung Disease Opacities on CT Images

**Authors:** S Kido, MD, PhD, Ube, Yamaguchi JAPAN; K Murakami; N Hashimoto; Y Hirano; S Mabu; K Suzuki, PhD

**Time and Place:** Mon Nov 26 2018 12:15PM - 12:45PM ROOM AI Community, Learning Center

**Session Name:** Radiology Informatics - Machine Learning and Data Science

### – Tuesday –

#### Scientific Paper

**Title:** Effect of Simulated Micro-Dose (mD) CT on the Performance of Neural Network Convolution (NNC) Deep-Learning (DL) In Radiation Dose Reduction in Chest CT

**Authors:** Y Zhao, MSc; A Zarshenas, MSc; T Higaki, Ph.D; K Awai, MD; K Suzuki, PhD

**Time and Place:** Tuesday Nov 27 2018 11:40AM - 11:50AM ROOM S404CD

**Session Name:** Physics (Radiation Dose)

#### Scientific Paper

**Title:** Virtual Dual-Energy (VDE) Imaging: Separation of Bones from Soft Tissue in Chest Radiographs (CXR) by Means of Deep Residual Learning (DRL)

**Authors:** A Zarshenas, MSc, Chicago, IL; Y Wang, BSc, BEng; J Liu, MS; Z Dai, BS; K Suzuki, PhD

**Time and Place:** Tuesday November 27 3:50 - 4:00 PM ROOM N229

**Session Name:** Physics

### – Wednesday –

#### Scientific Paper

**Title:** Blinded Observer Study: “Virtual” Full-Dose (VFD) Digital Breast Tomosynthesis (DBT) Images Derived from Reduced-Dose Acquisitions versus Clinical Full-Dose DBT Images

**Authors:** J Liu, MS, Chicago, IL; S Qadir; A Zarshenas, MSc; L Yang, MD, PhD; L L Fajardo, MD, MBA; K Suzuki, PhD

**Time and Place:** Wed Nov 28 2018 10:30AM - 10:40AM ROOM E451A

**Session Name:** Breast Imaging (Tomosynthesis: Screening Applications)

#### Education Exhibit

**Title:** “Virtual” High-Dose Technology: Radiation Dose Reduction in Thin-Slice Chest CT at a Micro-Dose (mD) Level by Means of 3D Deep Neural Network Convolution (NNC)



**Authors:** A Zarshenas, MSc, Chicago, IL; Y Zhao, MSc; J Liu, MS; T Higaki, PhD; K Awai, MD; K Suzuki, PhD

**Time and Place:** Wednesday November 28 12:15 - 12:45 PM

**Session Name:** Station #1

**– Thursday –**

**Scientific Poster**

**Title:** “Virtual” Full-Dose (VFD) Technology: Radiation Dose Reduction in Digital Breast Tomosynthesis (DBT) by Means of Neural Network Convolution (NNC) Deep Learning

**Authors:** J Liu, MS, Chicago, IL; A Zarshenas, MSc; S Qadir; L Yang, MD, PhD; L L Fajardo, MD, MBA; K Suzuki, PhD

**Time and Place:** Thu Nov 29 2018 12:15PM - 12:45PM ROOM BR Community, Learning Center

**Session Name:** Breast Imaging (Artificial Intelligence, Machine Learning and CAD)

**Education Exhibit**

**Title:** A Two-Stage Deep-Learning Scheme for Reducing Radiation Dose in Digital Breast Tomosynthesis (DBT)

**Authors:** J Liu, MS, Chicago, IL; A Zarshenas, MSc; S Qadir; L Yang, MD, PhD; L L Fajardo, MD, MBA; K Suzuki, PhD

**Time and Place:** Thu Nov 29 2018 12:45PM - 1:15PM ROOM AI Community, Learning Center

**Session Name:** Radiology Informatics (Machine Learning and Data Science)

**– All Day –**

**Education Exhibit**

**Title:** Historical Overview of Machine Learning (ML) and Deep Learning in Medical Image Analysis - What are the Sources of the Power of Deep Learning?

**Authors:** K Suzuki, PhD, Chicago, IL; A Zarshenas, MSc; J Liu, MS; Y Zhao, MSc; Y Luo

**Category:** Radiology Informatics - Machine Learning and Data Science

**Education Exhibit**

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**Authors:** A Zarshenas, MSc, Chicago, IL; Y Zhao, MSc; J Liu, MS; T Higaki, PhD; K Awai, MD; K Suzuki, PhD

**Category:** Breast Imaging (Artificial Intelligence, Machine Learning and CAD)

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Computational Intelligence in Biomedical Imaging Lab  
Medical Imaging Research Center  
Illinois Institute of Technology

**Education Exhibit**

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**Authors:** S Kido, MD, PhD, Ube, Yamaguchi JAPAN; K Murakami; N Hashimoto; Y Hirano; S Mabu; K Suzuki, PhD

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