

RSNA® 2019
DECEMBER 1-6

Artificial Intelligence

**RADIOLOGICAL SOCIETY
OF NORTH AMERICA**
105TH Scientific Assembly
and Annual Meeting

Meeting.RSNA.org
#RSNA19

Accreditation and Designation Statements

The Radiological Society of North America (RSNA®) is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

The RSNA designates this live activity for a maximum of 94.00 *AMA PRA Category 1 Credits™*. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

The Commission on Accreditation of Medical Physics Education Program (CAMPEP) has approved the direct transfer of *AMA PRA Category 1 Credit™* to MPCEC on a credit-for-credit basis for medical physicists.

Corporate Symposium

Please refer to each course description in the online program to determine if CME credit is offered for the session.

Instructions on claiming credit will be provided during the course. CME credit for the Corporate Symposiums will be provided through a third-party provider and not through RSNA.

The AI Showcase

Visit this exciting central hub for all things related to AI. Located in the North Building, Level 2, this expanded and newly designed area features more than 130 companies offering you the opportunity to demo AI software and products, connect with industry leaders and see the possibilities of AI firsthand. The Showcase also features daily presentations at the RSNA AI Theater, educational opportunities including the RSNA AI Deep Learning Lab, industry-sponsored AI Hands-on Workshops and several networking lounges.

Program information is subject to change. For the most up-to-date information, please use your Meeting App or visit Meeting.RSNA.org.

Walk Through the Week

Saturday, Nov. 30, 2019

2:15–4:15 PM

Educational Courses

AAPM/RSNA Physics Tutorial Session 2

Session SPPH02.E351

Sunday, Dec. 1, 2019

10:30 AM–12:00 PM

Educational Courses

RSNA AI Deep Learning Lab: Beginner Class: Classification Task (Intro)

Session SPAI11 AI Showcase North Building Level 2

10:30–10:50 AM

Showcase Presentations

RSNA AI Theater: How to Enhance your Chest CT Interpretation with AI-powered QCT: Presented by VIDA

Session AI11 AI Showcase North Building Level 2

10:30–11:00 AM

Vendor Workshops

AI Deep Learning Radiology Assist in Reviewing ABUS Cases: Presented by GE Healthcare

Session VW34. South Building, Booth 5135

10:45 AM–12:15 PM

Scientific Papers Sessions

Breast Imaging (Artificial Intelligence in Screening)

Session SSA01 S406A

Gastrointestinal (Radiomics)

Session SSA08. S104A

Science Session with Keynote: Informatics (Artificial Intelligence: Cutting Edge Artificial Intelligence)

Session SSA12 E450A

Neuroradiology (Stroke 1)

Session SSA17 S501ABC

11:00–11:20 AM

Showcase Presentations

RSNA AI Theater: Japan's Startup Unlocking the Power of AI: Presented by LPIXEL, Inc.

Session AI12 AI Showcase North Building Level 2

**11:00–11:45 AM****Vendor Workshops**

Efficacy in Diagnosis with Tomosynthesis in Daily Practice (En Español): Presented by Hologic, Inc.

Session VW63 South Building, Booth 5119

11:30–11:50 AM**Showcase Presentations**

RSNA AI Theater: How Subtle Medical Can Improve Operational Efficiency and Patient Satisfaction: Presented by Subtle Medical

Session AI13 AI Showcase, North Building, Level 2

12:00–12:20 PM**Showcase Presentations**

RSNA AI Theater: Practical AI: How Is It Really Helping Patients Today: Presented by Viz.ai

Session AI14 AI Showcase North Building Level 2

12:15–1:30 PM**Vendor Workshops**

Implementing Contrast Enhanced Digital Mammography into your Practice: Presented by Hologic, Inc.

Session VW64 South Building, Booth 5119

12:30–12:50 PM**Showcase Presentations**

RSNA AI Theater: iBiopsy®-Leveraging AI Technologies in Imaging to Unlock the Power of Precision Medicine: Presented by Median Technologies

Session AI15 AI Showcase North Building Level 2

12:30–1:00 PM**Posters and Exhibits: Discussions**

Artificial Intelligence Sunday Poster Discussions

Session AIS-SUA AI Community, Learning Center

1:00–2:30 PM**Educational Courses**

RSNA AI Deep Learning Lab: Segmentation

Session SPAI12 AI Showcase North Building Level 2

1:00–1:20 PM**Showcase Presentations**

RSNA AI Theater: Comparing Advanced MRI Acquisition Acceleration Methods: Compressed Sensing versus AI-based Iterative Image Reconstruction: Presented by Medic Vision

Session AI16 AI Showcase North Building Level 2

1:00–1:30 PM**Posters and Exhibits: Discussions**

Artificial Intelligence Sunday Poster Discussions

Session AIS-SUB AI Community, Learning Center

1:30–1:50 PM**Showcase Presentations**

RSNA AI Theater: Building Trust in AI from the Ground Up: Presented by Koios Medical

Session AI17 AI Showcase North Building Level 2

2:00–3:30 PM**Educational Courses**

Hands-on Artificial Intelligence for Non-coders: How is an Intracranial Hemorrhage Detection Algorithm Created? (Hands-on)

Course RCA12 S401AB

Ethics of AI in Radiology: Summary of the European and North American Multisociety Statement

Course RCC12 E451A

2:00–2:20 PM**Showcase Presentations**

RSNA AI Theater: Practical Deep Learning for Breast Cancer Screening: Presented by Kheiron Medical Technologies, Ltd.

Session AI18 AI Showcase North Building Level 2

2:00–3:15 PM**Vendor Workshops**

Increase Confidence and Improve Workflow Efficiencies with High Resolution Imaging Technology: Presented by Hologic, Inc.

Session VW65 South Building, Booth 5119

2:30–3:00 PM**Vendor Workshops**

AI-based Decision Support for Diagnostic Breast Ultrasound: Presented by GE Healthcare

Session VW38 South Building, Booth 5135

3:00–4:30 PM**Educational Courses**

RSNA AI Deep Learning Lab: Data Science: Data Wrangling

Session SPAI13 AI Showcase North Building Level 2

3:45–5:00 PM**Vendor Workshops**

Clinical Perspective on 3D™ Guided Breast Biopsy and Real-Time Specimen Imaging: Presented by Hologic, Inc.

Session VW66 South Building, Booth 5119

4:00–5:30 PM**Educational Courses**

Hands-on Artificial Intelligence for Non-coders: Object Localization and Image Segmentation (Hands-on)

Course RCA13 S401AB



Creating Publicly Accessible Radiology Imaging Resources for Machine Learning and AI
Course RCC13 **E353C**

Monday, Dec. 2, 2019

7:15–8:15 AM

Educational Courses

Hot Topic Session: Radiomics in Thoracic Imaging
Session SPSH20 **E350**

8:30–9:30 AM

Corporate Symposium

High Resolution Breast Imaging: Implementation and Work-flow Optimization: Presented by Hologic, Inc.
Session CS22 **S102AB**

8:30–10:00 AM

Educational Courses

Artificial Intelligence and Precision Education: How AI Can Revolutionize Training in Radiology
Course RC202 **E450A**

8:30 AM–12:00 PM

Educational Courses

Neuroradiology Series: AI in Neuroradiology
Course RC205 **S406B**

9:00–10:30 AM

Corporate Symposium

Hot Topics in Contrast-Enhanced MRI: Presented by Northwest Imaging Forums, educational grant provided by Bracco Diagnostics, Inc.
Session CS21 **S101AB**

10:30 AM–12:00 PM

Educational Courses

Novel Discoveries Using the NCI's Cancer Imaging Archive (TCIA) Public Data Sets
Course RCC22 **E353A**

RSNA AI Deep Learning Lab: Beginner Class: Classification Task (Intro)
Session SPAI21 **AI Showcase North Building Level 2**

10:30 AM–12:00 PM

Scientific Papers Sessions

Chest (Radiomics - Malignancy)
Session SSC03 **E451A**

Science Session with Keynote: Emergency Radiology (Imaging Algorithms and Technique)
Session SSC04 **S102CD**

Informatics (Artificial Intelligence: Bleeding Edge)
Session SSC08 **E450A**

Musculoskeletal (Body Composition)
Session SSC09 **E450B**

10:30–10:50 AM

Showcase Presentations

RSNA AI Theater: SwiftMR: MRI Acceleration using Deep Learning Reconstruction: Presented by AIRS MEDICAL
Session AI21 **AI Showcase North Building Level 2**

10:30–11:00 AM

Vendor Workshops

Breaking Down Barriers in AI Development for Lesion Identification in Breast Care using Ultrasound: Presented by GE Healthcare
Session VW41 **South Building, Booth 5135**

10:30–11:15 AM

Vendor Workshops

Transformative Breast US Technology: Clinical Benefits of Specialized Breast Ultrasound Systems: Presented by Hologic, Inc.
Session VW67 **South Building, Booth 5119**

11:00–11:20 AM

Showcase Presentations

RSNA AI Theater: Empowering Data Science with Imaging: Presented by OneMedNet Corporation
Session AI22 **AI Showcase, North Building, Level 2**

11:30–11:50 AM

Showcase Presentations

RSNA AI Theater: Comparing Your Case to Massive Databases as a Key to Precision Medicine: Presented by contextflow
Session AI23 **AI Showcase, North Building, Level 2**

11:30 AM–12:00 PM

Vendor Workshops

Risk-based Breast Cancer Screening and Breast Density Assessment: Presented by GE Healthcare
Session VW42 **South Building, Booth 5135**

11:45 AM–12:30 PM

Vendor Workshops

Personalizing Mammography: Managing the High-risk Patient to the Dense Breast Patient: Presented by Hologic, Inc.
Session VW68 **South Building, Booth 5119**



12:00–12:20 PM

Showcase Presentations

3D + AV Theater: New Patient-tailored Radiology based on a Synergy of Artificial Intelligence and 3D Printing: Presented by Medical IP

**Session 3D23 3D Printing & AV Theater
North Building**

RSNA AI Theater: AI Integrated in Daily Workflow with QUIBIM Precision: Visualize, Annotate, Quantify, Report and Discover: Presented by QUIBIM

Session AI24. AI Showcase North Building Level 2

12:15–12:45 PM

Posters and Exhibits: Discussions

Artificial Intelligence Monday Poster Discussions

Session AIS-MOA AI Community, Learning Center

12:30–1:30 PM

Lunch and Learns

Lunch and Learn: Case Studies of How Subtle Medical Software Solutions Improve Clinical Productivity, Quality and Safety of Medical Imaging: Presented by Subtle Medical, Inc. (Invite-only)

Session LL11 S403B

Lunch and Learn: Putting AI into Practice: Today's Clinical Successes and Considerations for AI Deployment in the Radiologist Workflow: Presented by Fujifilm Medical Systems (RSVP-required)

Session LL13 S403A

12:30–12:50 PM

Showcase Presentations

RSNA AI Theater: Will an Algorithm Work in your Environment? The Role of Analytics in Spotting "Hits and Misses": Presented by Nuance Communications

Session AI25. AI Showcase North Building Level 2

12:45–1:15 PM

Posters and Exhibits: Discussions

Artificial Intelligence Monday Poster Discussions

Session AIS-MOB AI Community, Learning Center

1:00–2:30 PM

Educational Courses

RSNA AI Deep Learning Lab: Data Science: Data Wrangling

Session SPAI22 AI Showcase, North Building

1:00–1:20 PM

Showcase Presentations

RSNA AI Theater: In the Quest to Democratize AI, Smart Devices and Integrated Workflows Matter: Presented by GE Healthcare

Session AI26. AI Showcase North Building Level 2

1:00–2:30 PM

AI Hands-on Workshop

Getting Value from AI in your Clinical Workflow: Presented by ARTERYS

**Session HW22. AI Showcase North Building
Level 2, Booth 11536**

1:00–2:00 PM

Vendor Workshops

Open Discussion on the Implementation of Contrast Enhanced Digital Mammography: Presented by Hologic, Inc.

Session VW69 South Building, Booth 5119

1:30–3:00 PM

Educational Courses

Molecular Imaging Symposium: Neurologic MI Applications

Course MSMI23. S405AB

1:30–1:50 PM

Showcase Presentations

RSNA AI Theater: It's Real, It Works and It's Now! Take AI Out of the Lab and into Clinical Practice: Presented by Infervision

Session AI27. AI Showcase North Building Level 2

2:00–3:00 PM

Corporate Symposium

Advances in MR & CT Imaging: Emphasis on Artificial Intelligence: Presented by the Institute for Advanced Medical Education (IAME), educational grant provided by Canon Medical Systems USA, Inc.

Session CS24 S101AB

2:00–3:30 PM

Corporate Symposium

Enhancing Patient Care in CTEPH through Imaging Innovation: Presented by Bayer and Siemens Healthineers

Session CS26 S105D

2:00–2:20 PM

Showcase Presentations

RSNA AI Theater: Next-Generation Radiology AI: The Journey from an AI Algorithm to a Partner: Presented by Aidoc

Session AI28. AI Showcase North Building Level 2

**2:30-2:50 PM****Showcase Presentations**

RSNA AI Theater: Practical Experience with Production Deployment of AI: Presented by Zebra Medical Vision and Intermountain Healthcare

Session AI29 **AI Showcase North Building Level 2**

2:30-3:45 PM**Vendor Workshops**

Clinical Perspective on 3D™ Guided Breast Biopsy and Real-time Specimen Imaging: Presented by Hologic, Inc.

Session VW70 **South Building, Booth 5119**

3:00-4:30 PM**Educational Courses**

RSNA AI Deep Learning Lab: Generative Adversarial Networks (GANs)

Session SPAI23 . . . **AI Showcase North Building Level 2**

3:00-4:00 PM**Scientific Papers Sessions**

Chest (Radiomics and Machine Learning)

Session SSE05 **S102CD**

Gastrointestinal (Artificial Intelligence and Machine Learning)

Session SSE09 **N230B**

Informatics (Artificial Intelligence: Triage, Screening, Quality)

Session SSE14 **S406B**

Physics (Deep Learning - X-Ray Scatter Correction and Denoising)

Session SSE24 **S104A**

3:30-5:00 PM**Showcase Presentations**

RSNA AI Theater: RSNA Intracranial Hemorrhage Detection AI Challenge Winner Recognition Event

Session AI30.....**AI Showcase North Building Level 2**

4:15-5:00 PM**Vendor Workshops**

Efficacy in Diagnosis with Tomosynthesis in Daily Practice (En Español): Presented by Hologic, Inc.

Session VW71 **South Building, Booth 5119**

4:30-6:00 PM**Educational Courses**

Special Interest Session: The Role of AI in Radiology in the Developing World?

Session SPSI24 **E450A**

Tuesday, Dec. 3, 2019**8:30 AM-12:00 PM****Educational Courses**

Breast Series: Emerging Technologies (The In-Person Presentation is Supported by an Unrestricted Educational Grant from Hologic)

Course RC315 **Arie Crown Theater**

9:00-10:30 AM**Corporate Symposium**

Creating Winning Workflows: Identifying Pain Points and Solutions within Radiology Workflow: Presented by Philips

Session CS31 **S101AB**

9:00-10:00 AM**Corporate Symposium**

Provider Panel: An Inside Look at Clinical Experiences with AI: Presented by IBM Watson Health

Session CS33 **S105D**

10:30 AM-12:00 PM**Educational Courses**

RSNA AI Deep Learning Lab: Generative Adversarial Networks (GANs)

Session SPAI31 . . . **AI Showcase North Building Level 2**

10:30 AM-12:00 PM**Scientific Papers Sessions**

Science Session with Keynote: Chest (Pulmonary Vasculature and Angiography/Dual Energy CT)

Session SSG03 **S404CD**

Informatics (Artificial Intelligence: NLP and Reporting)

Session SSG06 **S406A**

Musculoskeletal (Machine Learning and Artificial Intelligence)

Session SSG08 **E451A**

Physics (Deep Learning - Clinical Applications)

Session SSG13 **S502AB**

10:30-10:50 AM**Showcase Presentations**

RSNA AI Theater: AI-powered Precision Diagnostics: Beyond Expert Level Imaging Biomarkers for Chest and Breast Imaging: Presented by Lunit

Session AI31 **AI Showcase North Building Level 2**

**10:30 AM–12:00 PM****AI Hands-on Workshop**

First-Hand Experience with 4 AI-powered Diagnosis Systems:
Presented by 12 Sigma Technologies

**Session HW31 AI Showcase North Building
Level 2, Booth 11536**

10:30–11:45 AM**Vendor Workshops**

Increase Confidence and Improve Workflow Efficiencies with
High-Resolution Imaging Technology: Presented by
Hologic, Inc.

Session VW72 South Building, Booth 5119

11:00–11:20 AM**Showcase Presentations**

RSNA AI Theater: AI in Clinical Cardiac MRI: Presented by
Circle Cardiovascular Imaging

Session AI32 AI Showcase North Building Level 2

11:30–11:50 AM**Showcase Presentations**

3D + AV Theater: Experimental Applications of Desktop 3DP:
Pioneering Research from the Field: Presented by Formlabs

**Session 3D32 3D Printing and Advanced
Visualization Theater, North Building**

RSNA AI Theater: Putting Medical AI to Work - Delivering
Intelligent, Efficient and Validated Solutions to the Workflow of
Radiology: Presented by VUNO, Inc.

Session AI33 AI Showcase North Building Level 2

11:30 AM–12:00 PM**Vendor Workshops**

Breaking Down Barriers in AI Development for Lesion
Identification in Breast Care using Ultrasound: Presented by
GE Healthcare

Session VW48 South Building, Booth 5135

12:00–12:20 PM**Showcase Presentations**

RSNA AI Theater: ScanDiags-AI-driven Decision Support from
Musculoskeletal MRI: Presented by Balzano AI Engineers

Session AI34 AI Showcase North Building Level 2

12:15–12:45 PM**Posters and Exhibits: Discussions**

Artificial Intelligence Tuesday Poster Discussions

Session AIS-TUA AI Community, Learning Center

12:15–1:30 PM**Vendor Workshops**

Clinical Perspective on 3D™ Guided Breast Biopsy and
Real-Time Specimen Imaging: Presented by Hologic, Inc.

Session VW73 South Building, Booth 5119

12:30–2:00 PM**Educational Courses**

Hands-on Artificial Intelligence for Non-coders: Object
Localization and Image Segmentation (Hands-on)

Course RCA33 S401AB

12:30–1:30 PM**Lunch and Learns**

Lunch and Learn: Maturing Your Organization's Capability to
Develop and Utilize Heterogenous, Longitudinal, and
Regulatory Grade Real-world Evidence: Presented by Life
Image (RSVP-required)

Session LL21 S403B

Lunch and Learn: Imaging AI for Advanced COPD Care:
Presented by Konica Minolta (RSVP-required)

Session LL22 S404AB

Lunch and Learn: Where the AI 'Rubber' Meets the Road:
Making Deep Learning Technology Clinically Safe and
Operationally Impactful for Breast Screening: Presented by
Kheiron Medical Technologies (RSVP-required)

Session LL23 S403A

12:30–12:50 PM**Showcase Presentations**

RSNA AI Theater: How to Successfully and Responsibly
Introduce AI in Clinical Practice: Presented by Quantib BV

Session AI35 AI Showcase North Building Level 2

12:45–1:15 PM**Posters and Exhibits: Discussions**

Artificial Intelligence Tuesday Poster Discussions

Session AIS-TUB AI Community, Learning Center

1:00–2:30 PM**Educational Courses**

RSNA AI Deep Learning Lab: Segmentation

Session SPAI32 . . . AI Showcase, North Building, Level 2

1:00–1:20 PM**Showcase Presentations**

RSNA AI Theater: Impacting Workflows on Routine MSK
X-rays with the Implementation of Machine Learning
Algorithms: Presented by Radiobotics

Session AI36 AI Showcase North Building Level 2

**1:30–1:50 PM****Showcase Presentations**

RSNA AI Theater: Driving Revenue in Radiology with AI:
Presented by Blackford

Session AI37. AI Showcase North Building Level 2

1:00–2:30 PM**AI Hands-on Workshop**

Head-to-toe hands-on with AI and imaging biomarkers
integrated in PACS. QUIBIM Precision: Presented by
QUIBIM SL

**Session HW32. AI Showcase North Building
Level 2, Booth 11536**

2:00–3:30 PM**Corporate Symposium**

AI: Delivering on the Promise: Presented by MaxQ AI

Session CS35 S102AB

2:00–2:20 PM**Showcase Presentations**

RSNA AI Theater: XStream® aiCockpit™-Workflow
Orchestration for AI: Presented by Fovia AI

Session AI38. AI Showcase North Building Level 2

2:00–3:15 PM**Vendor Workshops**

A Revolution in Localization: Presented by Hologic, Inc.

Session VW74 South Building, Booth 5119

2:30–3:00 PM**Showcase Presentations**

RSNA AI Theater: How RSNA is Fostering the AI Ecosystem:
Presented by Safwan Halabi, MD

Session AI39. AI Showcase North Building Level 2

2:30–4:00 PM**Educational Courses**

Hands-on Artificial Intelligence for Non-coders: How is an
Intracranial Hemorrhage Detection Algorithm Created?
(Hands-on)

Course RCA34 S401AB

3:00–3:45 PM**Showcase Presentations**

RSNA AI Theater: Getting Your Radiology Department and IT
Ready for AI and Big Data: Presented by Paul J. Chang, MD

Session AI40. AI Showcase North Building Level 2

3:00–4:30 PM**Educational Courses**

RSNA AI Deep Learning Lab: Beginner Class: Classification
Task (Intro)

Session SPA133 . . . AI Showcase North Building Level 2

3:00–4:00 PM**Scientific Papers Sessions**

Breast Imaging (Artificial Intelligence in Mammography)

Session SSJ02 E451B

Chest (Artificial Intelligence/Machine Learning - Lung
Malignancy)

Session SSJ05 S102CD

Physics (CAD/Machine Learning, Quantitative Imaging)

Session SSJ23 N229

3:30–5:00 PM**AI Hands-on Workshop**

Deep Learning for MRI Interpretation on the Microsoft Azure
ML Platform: Presented by Balzano AI Engineers

**Session HW33. AI Showcase North Building
Level 2, Booth 11536**

3:45–5:00 PM**Vendor Workshops**

Implementing Contrast Enhanced Digital Mammography into
your Practice: Presented by Hologic, Inc.

Session VW75 South Building, Booth 5119

4:30–6:00 PM**Educational Courses**

Learning AI from the Experts: Becoming an AI Leader in
Global Radiology (Without Needing a Computer Science
Degree) (Sponsored by the RSNA Committee of International
Radiology Education)

Course RC416 E352

Platforms and Infrastructures for Accelerated Discoveries in
Machine Learning and Radiomics

Course RC454. S403B

Wednesday, Dec. 4, 2019**8:30–10:00 AM****Educational Courses**

Machine Learning for Radiotherapy Applications

Course RC522. E352

Deep Learning in Radiology: How Do We Do It?

Course RC554. S406B

**9:00–10:30 AM****Corporate Symposium**

SOLVE: Intel is Driving Innovation for AI Inference at the Edge with Key Industry Partners: Presented by Intel Corporation

Session CS41 S101AB

10:00–10:30 AM**Vendor Workshops**

AI-based Decision Support for Diagnostic Breast Ultrasound: Presented by GE Healthcare

Session VW54. South Building, Booth 5135

10:30 AM–12:00 PM**Educational Courses**

Preparing your Radiology Practice and IT Department for Big Data

Course RCC42. S406B

RSNA AI Deep Learning Lab: Segmentation

Session SPAI41. . . . AI Showcase North Building Level 2

10:30–10:50 AM**Showcase Presentations**

RSNA AI Theater: AI-assisted Breast Cancer Screening-Bringing the Winning Algorithm of the DREAM Challenge to Production: Presented by Therapixel

Session AI41 AI Showcase North Building Level 2

10:30–11:50 AM**AI Hands-on Workshop**

GE Healthcare's Edison Partner Program Hands-on Workshop: Presented by GE Healthcare

Session HW41 AI Showcase North Building Level 2, Booth 11536

10:30–11:45 AM**Vendor Workshops**

Increase Confidence and Improve Workflow Efficiencies with High Resolution Imaging Technology: Presented by Hologic, Inc.

Session VW76 South Building, Booth 5119

11:00–11:20 AM**Showcase Presentations**

RSNA AI Theater: Implementing AI in Clinical Practice - When Technology Hits Reality: Presented by Aidence

Session AI42. AI Showcase North Building Level 2

11:30–11:50 AM**Showcase Presentations**

RSNA AI Theater: Hitting the Bull's AI in Neuroradiology: Unlocking Value from Workflow to Patient: Presented by icometrix

Session AI43. AI Showcase North Building Level 2

12:00–12:20 PM**Showcase Presentations**

RSNA AI Theater: AI and the Everyday Radiologist: Embracing the Possibilities While Avoiding the Pitfalls: Presented by TeraRecon

Session AI44. AI Showcase North Building Level 2

12:15–12:45 PM**Posters and Exhibits: Discussions**

Artificial Intelligence Wednesday Poster Discussions

Session AIS-WEA AI Community, Learning Center

12:15–1:30 PM**Vendor Workshops**

Clinical Perspective on 3D™ Guided Breast Biopsy and Real-Time Specimen Imaging: Presented by Hologic, Inc.

Session VW77 South Building, Booth 5119

12:30–12:50 PM**Showcase Presentations**

RSNA AI Theater: Making Ultrasound More Efficient with Real-time AI in the Clinic: Presented by Intelligent Ultrasound North America, Inc.

Session AI45. AI Showcase North Building Level 2

12:45–1:15 PM**Posters and Exhibits: Discussions**

Artificial Intelligence Wednesday Poster Discussions

Session AIS-WEB AI Community, Learning Center

1:00–2:30 PM**Educational Courses**

RSNA AI Deep Learning Lab: Generative Adversarial Networks (GANs)

Session SPAI42 . . AI Showcase, North Building, Level 2

1:00–1:20 PM**Showcase Presentations**

RSNA AI Theater: Building Blocks of an AI Ecosystem: Presented by IBM Watson Health

Session AI46. AI Showcase North Building Level 2

**1:30–1:50 PM****Showcase Presentations**

RSNA AI Theater: iCAD's Advancements in Mammography for Cancer Detection and Risk Prediction: Presented by iCAD, Inc.

Session AI47. AI Showcase North Building Level 2

2:00–2:20 PM**Showcase Presentations**

RSNA AI Theater: Advances in AI Guided Scanning: Presented by HeartVista, Inc.

Session AI48. AI Showcase North Building Level 2

2:00–3:15 PM**Vendor Workshops**

A Revolution in Localization: Presented by Hologic, Inc.

Session VW78. South Building, Booth 5119

2:30–3:30 PM**Showcase Presentations**

RSNA AI Theater: Deep Learning in Radiology: How Do We Do It? Q&A/Follow-up: Presented by Curtis P. Langlotz, MD, PhD; Luciano M. Prevedello, MD, MPH

Session AI49. AI Showcase North Building Level 2

2:30–4:00 PM**Educational Courses**

Clinical Decision Support: From Theory to Clinical Practice

Course RCC44. S406B

3:00–4:30 PM**Educational Courses**

RSNA AI Deep Learning Lab: Beginner Class: Classification Task (Intro)

Session SPAI43 . . . AI Showcase North Building Level 2

3:00–4:00 PM**Scientific Papers Sessions**

Breast Imaging (Radiomics)

Session SSM02. E451A

Informatics (Artificial Intelligence: Generative Adversarial Networks)

Session SSM14. E353C

Thursday, Dec. 5, 2019**7:15–8:15 AM****Educational Courses**

Controversy Session: AI: Is it Ready for Your Practice

Session SPSC50. E351

8:30–10:00 AM**Educational Courses**

Innovations in Medical Imaging Physics with Deep Learning

Course RC621. E353B

Machine Learning and Radiomics in MRI

Course RC629. E451A

Deep Learning & Machine Intelligence in Radiology

Course RC654. S406B

Artificial Intelligence: Beyond Interpretive Considerations

Course RCC51. E353C

8:30 AM–12:00 PM**Educational Courses**

Musculoskeletal Series: Applying Artificial Intelligence to

Musculoskeletal Imaging

Course RC604. N228

10:30 AM–12:00 PM**Educational Courses**

RSNA AI Deep Learning Lab: Data Science:

Data Wrangling

Session SPAI51. . . . AI Showcase North Building Level 2

10:30 AM–12:00 PM**Scientific Papers Sessions**

Breast Imaging (Radiomics and Radiogenomics)

Session SSQ01. S406B

Genitourinary (Renal Masses: Artificial Intelligence, Machine Learning, and Texture)

Session SSQ10. E352

Informatics (Education, Analytics, Quantitative)

Session SSQ11. N229

Neuroradiology/Head and Neck (Artificial Intelligence)

Session SSQ15. S404AB

Physics (Deep Learning - Dose Reduction and Image Quality)

Session SSQ19. E353B

10:30–10:50 AM**Showcase Presentations**

RSNA AI Theater: The Economic Impact of AI on

Mammography-The MD Anderson Experience: Presented by CureMetrix

Session AI51. AI Showcase North Building Level 2

10:30–11:00 AM**Vendor Workshops**

AI-based Decision Support for Diagnostic Breast Ultrasound: Presented by GE Healthcare

Session VW60. South Building, Booth 5135

**11:00–11:20 AM****Showcase Presentations**

RSNA AI Theater: Big Data and Its Impact on Stroke Imaging:
Presented by Cercare Medical

Session AI52. AI Showcase North Building Level 2

11:30–11:50 AM**Showcase Presentations**

RSNA AI Theater: Comprehensive Bioinformatics Platform for
AI Research: Presented by Flywheel

Session AI53. AI Showcase North Building Level 2

12:00–12:20 PM**Showcase Presentations**

RSNA AI Theater: ED Radiology Exam Wait Time Prediction:
Presented by Philips Healthcare

Session AI54. AI Showcase, North Building, Level 2

12:15–12:45 PM**Posters and Exhibits: Discussions**

Artificial Intelligence Thursday Poster Discussions

Session AIS-THA AI Community, Learning Center

12:30–12:50 PM**Showcase Presentations**

RSNA AI Theater: AI-Powered Volumetrics to Improve
Radiologist Efficiency and Accuracy: Presented by CorTechs
Labs

Session AI55. AI Showcase, North Building, Level 2

12:45–1:15 PM**Posters and Exhibits: Discussions**

Artificial Intelligence Thursday Poster Discussions

Session AIS-THB AI Community, Learning Center

1:00–2:30 PM**Educational Courses**

RSNA AI Deep Learning Lab: Segmentation

Session SPAI52 . . . AI Showcase North Building Level 2

1:00–1:20 PM**Showcase Presentations**

RSNA AI Theater: Collaborative Medical AI Development:
Presented by CuraCloud

Session AI56. AI Showcase North Building Level 2

1:30–1:50 PM**Showcase Presentations**

RSNA AI Theater: mint Lesion™: Seeding Power Food for
AI - How Every Radiological Read Can Contribute to an
AI-powered Future: Presented by Mint Medical

Session AI57. AI Showcase North Building Level 2

4:30–6:00 PM**Educational Courses**

Deep Learning-An Imaging Roadmap

Course RCC55. E450A

Friday, Dec. 6, 2019**8:30–10:00 AM****Educational Courses**

AI, Radiomics, Text Mining, and More: 2019's Key Advances in
Imaging Informatics

Course RC853. E450A

10:30 AM–12:00 PM**Scientific Papers Sessions**

Chest (Artificial Intelligence - Machine Learning)

Session SST02. E451A

Musculoskeletal (Spine)

Session SST05. E450B

Science Session with Keynote: Pediatrics (Artificial
Intelligence and Machine Learning)

Session SST08. E261

**Posters and Exhibits
Discussions**

*[CME is available when the author is present for discussion
during the lunch period]*

Sunday, Dec. 1, 2019**12:30–1:00 PM****Scientific Posters**

Comparative Study on the Efficacy of Deep-Learning-Based
Detection of Pulmonary Nodules of Different Sizes between
Single-Source and Dual-Source Mode

AI224-SD-SUA1 Station #1

CT-Derived Radiogenomic Signatures Predicting BRAF/KRAS
Mutations and Overall Survival in Primary Colorectal
Carcinoma Patients

GI378-SD-SUA5 Station #5

Deep Learning with Multiclass Deep Convolutional Neural
Networks to Detect Prostate Cancer on Multiparametric MRI
Images Using a Multi-Institution Patient Cohort

AI267-SD-SUA3 Station #3



Evaluation of an Artificial Intelligence-Based Double Read System in Capturing Pulmonary Nodule Discrepancy in CT Studies

IN220-SD-SUA6 Station #6

Feasibility of Nakagami Parametric Imaging for Texture Analysis of Ultrasound Images

IN231-SD-SUA2 Station #2

Optimizing Distributed Deep Learning Methods for Medical Image Data Heterogeneity Across Institutions

AI237-SD-SUA2 Station #2

12:30–1:00 PM

Education Exhibits

A Practical Guide to Natural Language Processing for Radiology

AI139-ED-SUA4 Station #4

An Educational Approach to Dynamic Contrast-Enhanced MRI Techniques for Arthritis Assessment

MK293-ED-SUA8 Station #8

Metabolic and Endocrine Bone Disorders and Conditions: A Current, Comprehensive Review

MK292-ED-SUA7 Station #7

1:00–1:30 PM

Scientific Posters

A Proper Statistical Method for Comparing Diagnostic Performances Between Stand-alone Artificial Intelligence System and Multiple Readings from Multi-reader Diagnostic Performance Study

IN219-SD-SUB1 Station #1

Combined Use of Automated Volumetric Analysis of Breast Cancer Vascularization, Machine Learning and MRI: A Perfect Trio to Predict Survival Outcome in Breast Cancer Patients?

BR221-SD-SUB1 Station #1

Evaluation of Outcomes Following Pulmonary Artery Stenting in Fibrosing Mediastinitis

VI203-SD-SUB1 Station #1

Fully Automatic Deep-Learning System to Select L3 Slice and Measure Abdominal Muscle Area on CT

AI217-SD-SUB1 Station #1

Getting AI Ready for Deployment: Tuning Algorithms to Specific Sites Using a Single Chest X-Ray Image

AI261-SD-SUB2 Station #2

Implementation of a Clinical Decision Support System for Alerting the Physician to Repeat Imaging Examination Orders

IN268-SD-SUB4 Station #4

Repeatability of Machine Learning Classification of Prostate Cancer using Diffusion Weighted Imaging: Short-Term Repeatability Study of 112 Men Who Underwent Two Prostate MR Examinations Before Prostatectomy

AI209-SD-SUB3 Station #3

The Value of Radiomics in the Quality Control of Low-dose CT Examinations of Solid Pulmonary Nodules – A Phantom Study

IN276-SD-SUB5 Station #5

1:00–1:30 PM

Education Exhibits

Content-Based Image Retrieval for Searching Similar Chest CT with Diffuse Interstitial Lung Disease and Chronic

Obstructive Lung Disease with Quantitative and CNN Features

**AI003-EC-SUB Custom Application
Computer Demonstration**

Musculoskeletal Manifestations of HIV Infection:

A Pictorial Review

MK298-ED-SUB6 Station #6

Monday, Dec. 2, 2019

12:15–12:45 PM

Scientific Posters

Artificial Intelligence-Assisted Breast Cancer Risk Assessment

AI258-SD-MOA2 Station #2

Automated Quality Control of Adult Frontal Chest X-Ray with Deep Artificial Neural Networks

AI273-SD-MOA3 Station #3

Automated Volumetric Assessment of Multiple Sclerosis Disease Burden and Activity with Artificial Neural Networks

NR396-SD-MOA6 Station #6

Deep-Learning Reconstruction Improves Quality of Clinical Brain and Spine MR Imaging

NR370-SD-MOA1 Station #1

Holographic Light Field Displays for 3D viewing

IN271-SD-MOA4 Station #4

Identifying Areas for Operational Improvement and Growth Opportunities in IR Workflow Using Workflow Modeling, Simulation and Optimization Techniques

IN248-SD-MOA5 Station #5

Impact of Image Resolution on Deep-Learning Performance for Pneumothorax Identification

AI241-SD-MOA1 Station #1

**12:45–1:15 PM****Scientific Posters**

Automatic 3D Segmentation of Breast MR T1 Images Using 3D Convolutional Neural Network

BR231-SD-MOB2 **Station #2**

Automatic Detection of Critical Findings in Brain MRI Exams Using Residual Convolutional Neural Networks

AI255-SD-MOB3 **Station #3**

CT Image Retrieval Based on Morphological Similarities in Diffuse Lung Diseases Using a Deep Convolutional Neural Network

AI211-SD-MOB1 **Station #1**

Deep Learning-Assisted Diagnosis of Atypical Hepatocellular Carcinoma (HCC) on Contrast-Enhanced MR Imaging: Differentiating Pathologically Proven HCC from Non-HCC Liver Lesions

GI374-SD-MOB7 **Station #7**

Impact of Native and Artificially Improved AI-Based CADx on Breast US Interpretation

BR254-SD-MOB4 **Station #4**

Implementation of An Onsite Medical Display Device Quality Control Program

IN229-SD-MOB3 **Station #3**

The Effect of Artificial Intelligence-Based Intracranial Hemorrhage Detection on Study Turnaround Time for Emergent Care Non-Contrast Head CT: A Prospective Randomized Clinical Trial

NR402-SD-MOB6 **Station #6**

Transfer Learning Approach to Generalize a State-of-the-Art Prostate Segmentation Model

AI257-SD-MOB2 **Station #2**

12:45–1:15 PM**Education Exhibits**

A Conversational Natural Language Processing (NLP) Model used to Scale Quality Improvement (QI) Processes for Tracking Radiologist Follow-Up Recommendations

AI023-EB-MOB **Hardcopy Backboard**

Dual Output V-Net CNN: A Virtual Iodinated Contrast Media Injection in Chest CT Toward a New Cardiac Risk Assessment

AI022-EB-MOB **Hardcopy Backboard**

Tuesday, Dec. 3, 2019**12:15–12:45 PM****Scientific Posters**

AI Radiomics in a Monogenic Autoimmune Disease: Deep Learning of Routine Radiologist Annotations Correlated with Pathologically Verified Lung Findings

IN212-SD-TUA1 **Station #1**

Contrasted Bilateral Network: Explore How Expert Knowledge Can Benefit Deep Learning Model in Mammogram Mass Detection

BR268-SD-TUA7 **Station #7**

CT Attenuation Characteristics of 3D Printed Materials

IN232-SD-TUA5 **Station #5**

Fully Automated Open-Source Critical Findings Notification System

IN214-SD-TUA4 **Station #4**

Impact of Dynamic Intima Motion on Renal Injury in Patients with Type B Acute Aortic Dissection: Quantitative Assessment with Dose-Regulated Retrospectively ECG-gated CT Angiography in Dual-Source CT

VI254-SD-TUA6 **Station #6**

Independent Validation of Diagnostic Machine Learning Radiomics on a Large Clinical Dataset of Consecutive Breast MRIs

BR235-SD-TUA3 **Station #3**

Perceived Realism of Generative Adversarial Network-Derived Synthetic Mammograms

BR266-SD-TUA5 **Station #5**

Significance of 3D Cube Flair with Compressive Sensing in the Diagnosis of Subcortical Microlesions

NR422-SD-TUA8 **Station #8**

Weakly-Supervised Deep-Learning Modeling on Sub-Volumes for Pre-Assessment of Digital Breast Tomosynthesis

BR267-SD-TUA6 **Station #6**

12:15–12:45 PM**Education Exhibits**

Computer-Aided Assessment of Catheters and Tubes on Radiographs: How Good is Artificial Intelligence for Assessment?

AI148-ED-TUA3 **Station #3**

Generative Adversarial Networks (GANs): A Primer for Radiologists

AI145-ED-TUA2 **Station #2**

Practical Guide to Natural Language Processing Research in Radiology

AI141-ED-TUA1 **Station #1**

**12:45–1:15 PM****Scientific Posters**

Automatic Segmentation of 3D Hip Ultrasound for Detection of Hip Dysplasia

AI205-SD-TUB2 **Station #2**

Convolutional Neural Network for Respiratory Motion Artifact Reduction in Multiphasic Liver MRI: Network Architecture and Clinical Evaluation

AI226-SD-TUB1 **Station #1**

Developing an Artificial Intelligence Algorithm Pipeline for Predicting Malignancy Risk for Mammographic Microcalcifications Leveraging the ACR Data Science Institute (DSI) Use Case Library

BR271-SD-TUB6 **Station #6**

Inter-operator Variability in Diffusion Tensor Imaging Tractography for Tumor Resection Surgical Planning

IN260-SD-TUB3 **Station #3**

Paging Dr. Robot: A Chat Bot with a Machine Learning Algorithm for Predicting Pediatric Bone Age Through Hand-Wrist X-Rays

AI225-SD-TUB3 **Station #3**

Radiation Dose Reduction in Digital Mammography by Image Reconstruction Using Deep Learning Algorithm: Clinical Evaluation

BR237-SD-TUB2 **Station #2**

Radio-Proteo-Genomic Differences in IDH1 Mutant versus Wild-Type Gliomas

NR426-SD-TUB6 **Station #6**

Renal Parenchyma Segmentation using the Combined 2D and 3D Segmentation Networks for Analysis of Volume Changes of Contralateral Hypertrophy after Robot-assisted Partial Nephrectomy in Abdominal CT Images

IN213-SD-TUB6 **Station #6**

ROSA Robot Rehearsal: Utilizing 3D Printing to Facilitate the Integration of Robotic Stereotactic Assistance (ROSA) in Neurosurgery

IN249-SD-TUB2 **Station #2**

Visceral Fat Quantification in Abdominal Computed Tomography Using Deep Learning

IN238-SD-TUB1 **Station #1**

Whole-Breast Malignancy Rating for MRI Using Deep Learning

BR270-SD-TUB5 **Station #5**

12:45–1:15 PM**Education Exhibits**

A Filter-Level Pruning Method for More Efficient Deep Learning Inference on Medical Images

AI024-EB-TUB **Hardcopy Backboard**

Wednesday, Dec. 4, 2019**12:15–12:45 PM****Scientific Posters**

A Machine Learning Approach of Support Vector Machine for Preoperative Prediction of Lymph Node Status in Intrahepatic Cholangiocarcinoma

AI221-SD-WEA1 **Station #1**

An Interpretable Generative Model for Chest X-Ray Decomposition via Synthesizing Radio-Realistic Normal Chest X-Rays and Separating Abnormalities

AI269-SD-WEA4 **Station #4**

Automatic Prediction of Optimal MRI Protocols Using Encoder-Decoder Model

AI201-SD-WEA2 **Station #2**

Collaborative Robotics for Image-Guided Interventions in a Standardized Network for Clinical Environments

IN218-SD-WEA6 **Station #6**

Early Experience Implementing a Web-based Interface to Annotate Breast Imaging Reports with Patent-oriented Definitions

IN216-SD-WEA2 **Station #2**

Engaging High-Risk Patients to Attend MRI Appointments Using a Scripted Phone Call: A Pilot Trial

AI207-SD-WEA3 **Station #3**

Evaluation of Technical Success and Complication Rates Following Endovascular Thrombolysis Interventions

VI263-SD-WEA6 **Station #6**

Improving Communication between Radiologists, Pathologists, and Urologists by using a PI-RADS Structured Reporting System

IN235-SD-WEA3 **Station #3**

Paradigm Shift in Diagnostic Radiology Training using Simulation Workshops: Intracranial Malignancies

IN247-SD-WEA4 **Station #4**

Using Generative Adversarial Networks (GANs) to Synthesize and Remove Lesions in X-Ray Mammograms Improves AI-Based Cancer Detection

BR241-SD-WEA3 **Station #3**

12:15–12:45 PM**Education Exhibits**

Continuous Improvement of LSTM Deep Learning NLP Algorithm to Predict Post-Procedure Exams for Worklist Prioritization Using API for Retraining and Redeployment

AI006-EC-WEA **Custom Application
Computer Demonstration**



Creating Annotated Image Datasets to Support Deep Learning Training and Validation

AI005-EC-WEA **Custom Application**
Computer Demonstration

Knowledge Distillation for U-Net on Medical Images

AI025-EB-WEA **Hardcopy Backboard**

Unsupervised Anomaly Detection on Medical Images with Generative Adversarial Networks: Strengths and Weaknesses

AI012-EB-WEA **Hardcopy Backboard**

12:45–1:15 PM

Scientific Posters

Association Rule Learning May Estimate Individual Risk for Contrast-Induced Acute Kidney Injury

AI227-SD-WEB2 **Station #2**

Automated Classification of Arteriolar Sclerosis Pathology and Prediction of Cognitive Decline Based on MRI Images

NR435-SD-WEB4 **Station #4**

Can Computational Fluid Dynamics Predict the Progression of Visceral Artery Aneurysms?

VI216-SD-WEB2 **Station #2**

Digital Variance Angiography as a Risk Reduction Measure in Peripheral Endovascular Interventions

VI271-SD-WEB5 **Station #5**

Disentangled Feature Representation of Pulmonary Diseases in the Latent Space of Progressive Growing of Generative Adversarial Networks in Chest PA X-Ray Images

AI233-SD-WEB4 **Station #4**

Mobile Deployment of a Convolutional Neural Network Which Identifies Pacemakers and Implantable Defibrillators on Chest Radiographs

AI230-SD-WEB1 **Station #1**

Radiogenomic Analysis of Glioblastoma on Pre-Treatment Gd-T1w MRI Reveals Gender-Specific Imaging Features and Signaling Pathways

NR386-SD-WEB2 **Station #2**

Sub-Region based Radiomics Analysis for Survival Prediction in Oesophageal Tumors Treated by Definitive Concurrent Chemoradiotherapy

AI242-SD-WEB3 **Station #3**

Tofu: For Stir-Fry and Ultrasound Procedural Training

IN206-SD-WEB3 **Station #3**

12:45–1:15 PM

Education Exhibits

Learning-Based MR-CT Registration for Guiding Thermal Ablation of Liver Tumors

AI007-EC-WEB **Custom Application**
Computer Demonstration

Not All 'Green' is Tophi - Focusing on the False Negatives and False Positives of DECT for Diagnosis of Gout

MK319-ED-WEB11 **Station #11**

RIL-Contour: A Collaborative Medical Imaging Dataset

Annotation Tool Designed to Accelerate Dataset Annotation for and With Deep Learning

AI008-EC-WEB **Custom Application**
Computer Demonstration

Thursday, Dec. 5, 2019

12:15–12:45 PM

Scientific Posters

A Machine Learning Approach to Radiogenomics of Breast Cancer to Predict Prognostic Biomarkers Using Low-Dose Perfusion Breast CT

BR247-SD-THA3 **Station #3**

A Study on the Computer-Assisted Diagnosis with Deep Learning Architecture (CADDELAC) for the Detection of Brain Metastases

NR390-SD-THA3 **Station #3**

An Artificial Intelligence Solution for Detecting Significant Pneumothorax on Chest Radiographs: Experience on a Real-World Dataset and Potential Impact on Turnaround Time at an Academic Tertiary Medical Center

AI239-SD-THA2 **Station #2**

Determining Brain Age Using Machine Learning Combined with Automated Brain Segmentation and PET imaging In Normal, Alzheimer's Disease and Mild Cognitive Impairment Subjects

AI262-SD-THA1 **Station #1**

Doppler-Based Renal Perfusion Variations After Fenestrated/ Branched Endovascular Repair and Post-Operative Renal Function Outcomes

VI219-SD-THA2 **Station #2**

Performance Evaluation of the ABC/2 Method and Deep Learning-Assisted Algorithm in Measuring the Volume of Intraparenchymal Hematoma

AI277-SD-THA3 **Station #3**

Segmentation and Measurement of Ventricular and Cranial Vault Volumes in 15,223 Subjects Using Artificial Intelligence

NR414-SD-THA6 **Station #6**



Therapeutic Pancreatic Cancer Tumor Analysis in CT Images using Global Atlas, Multi-Resolution Convolutional Neural Network and Wavelet Volumetric Shape Extraction
IN259-SD-THA2 **Station #2**

12:15–12:45 PM

Education Exhibits

ePAD-AI: A Platform for Standards-Based Collaborative AI Application Development in Medical Imaging
AI010-EC-THA **Custom Application
Computer Demonstration**

Self Help: Creating Research Opportunities in a Hybrid Training Setting
HP128-ED-THA4 **Station #4**

12:45–1:15 PM

Scientific Posters

A Federated Convolutional Denoising Autoencoder for MRI Applications
AI200-SD-THB1 **Station #1**

Artificial Intelligence-Based Cochlea Segmentation and Analysis on Clinical High-Resolution CT Images: Towards Automatic Patient-Specific Measurements for Surgical Planning
NR416-SD-THB5 **Station #5**

Machine Learning Model Generalizes Across Manufacturers and Clinical Sites
BR250-SD-THB3 **Station #3**

Medical Federated Deep Learning (MedFDL) for Automatic Body Part Labeling of CT Scout Images
AI250-SD-THB2 **Station #2**

Preoperative Prediction of Regional Lymph Node Metastasis of Breast Cancer by Radiomics of DCE-MRI with an Ensemble of Deep Learning Models
BR263-SD-THB4 **Station #4**

Vulnerability of Deep Learning based Computer-Aided Diagnosis: Experimental Adversarial Attack Against CT Lung Nodule Detection Model
AI202-SD-THB3 **Station #3**

12:45–1:15 PM

Education Exhibits

Common-Space-Learning from Multi-Modality for Missing MRI Synthesis and Glioma Grading
AI009-EC-THB **Custom Application
Computer Demonstration**

Generative Adversarial Network Models for Prediction of Survival in Patients with Interstitial Lung Diseases
AI002-EC-THB **Custom Application
Computer Demonstration**

Education Exhibits

SPACE No.	EXHIBIT TITLE
AI001-EC-X	Virtual Reality of Self-Supervised Generative Adversarial Learning in Electronic Cleansing for CT Colonography
AI004-EC-X	A Radiologist's Guide to Deep Learning and Artificial Intelligence: What You Need to Know for the Road Ahead
AI011-EB-X	Metrics for Artificial Intelligence Algorithms
AI013-EB-X	Overview of the Content-Based Image Retrieval (CBIR): Technical Advancement and Challenges in Medical Use
AI014-EB-X	From Images to Analysis, Segmentation, Classification and Radiomics: pyOsirix-Centered Workflow Solutions
AI015-EB-X	Practical Guide for Deployment of AI Solutions in Clinical Environment: How Did We Do It?
AI016-EB-X	How to Lie with Statistics: Things to Keep in Mind While Evaluating a Deep Learning Claim
AI017-EB-X	Building Robust ML Models Using Federated Learning: The Future of AI Deployment
AI018-EB-X	Why One Algorithm May Not Fit All: What Radiologists Need to Know About How Selection Bias May Affect Machine Learning Performance
AI019-ED-X	Practical Approaches to Managing Class Imbalance in Deep Learning on Radiological Data
AI020-EB-X	Generative Adversarial Networks Showcase: Their Mechanisms and Radiological Applications
AI021-EB-X	How to Improve the Quality of Organ Segmentation on CT Images and Where Could It Be Applicable?
AI02-ED-X	Dissecting the Artificial Intelligence Black Box: Why, When, and How
AI103-ED-X	How to Use Data Augmentation to Improve Deep Learning Model Performance
AI106-ED-X	An Intuitive Explanation of Radiomics



AI108-ED-X	Neural Networks in Deep Learning: A Simplified Explanation for Radiologists	MK112-ED-X	Synovial Disorders: A Radiographic Review
AI109-ED-X	A Quick Start to Deep Learning for Radiologists	MK114-ED-X	DISH, Ankylosing Spondylitis, and Spondyloarthritis: What's the Difference?
AI111-ED-X	Convolutional Neural Networks: Fundamental Theory and Guided Implementation for the Radiologist Using Google Collaboratory	MK125-ED-X	Stepwise Approach to Arthritis Based on Imaging
AI113-ED-X	Convolutional Neural Networks: Challenges and Solutions	MK129-ED-X	Musculoskeletal System Involvement by Opportunistic Infections: More Common than Recognized
AI114-ED-X	Anatomy of a Deep Learning Project for Breast Cancer Prognosis Prediction: From Collecting Data to Building a Pipeline	MK131-ED-X	Imaging Findings of Osteomyelitis: Update on Diagnosis
AI115-ED-X	Clinical and Machine Learning Statistics: What the Radiologist Needs to Know	MK132-ED-X	Conventional Radiology in Peripheral Arthritis: What the Radiologist Needs to Know
AI116-ED-X	Artificial Intelligence in Radiology: An Animated Interactive 'How We Do It' Guide for Radiology Residents	MK138-ED-X	Imaging Findings of Septic Arthritis: Update on Diagnosis
AI118-ED-X	Development of Accuracy Guarantee System using Deep Learning in Radiography	MK161-ED-X	Imaging Features of Inflammatory Disorders of the Spine: Update on Diagnosis
AI119-ED-X	Radiomics in Clinical Trials - The Rationale, Current Practices, and Future Considerations	MK169-ED-X	Yes, I Can Look Alike: Extra-Axial Tubercular Arthropathies and Its Mimics
AI129-ED-X	The Subtle Art of Accurate Natural Language Processing for Radiology Report Mining	MK187-ED-X	A Practical Guide to Interpret MRI Features of New Bone Formation in Axial Spondyloarthritis
HP104-ED-X	Mentorship, Sponsorship, and Coaching: Key Faculty and Resident Development Concepts and a Guide for Successful Implementation in the Radiology Department	MK215-ED-X	Imaging of Systemic Lupus Erythematosus: Musculoskeletal Manifestations
HP118-ED-X	Optimizing the Mentor-Mentee Relationship: A Guide for Mentees	MK217-ED-X	Imaging Features of Chronic Kidney Disease Mineral and Bone Disorders (CKD-MBD)
MK001-EB-X	Infected or Not? And by What? Challenging Cases of Musculoskeletal Infection Which Were Met During the Multidisciplinary Care Approach	MK228-ED-X	POPP Lesions: From Unrecognized to an Emerging Popping-up Entity in Auto-immune Arthritis
MK100-ED-X	Differentiation of Hand Small Joints Arthropathy in Patients with Rheumatoid Arthritis and Psoriatic Arthritis: Multimodality Imaging Characteristics	MK232-ED-X	Musculoskeletal Tuberculosis: A Practical Guide for Residents
MK105-ED-X	Osteomyelitis - A Common Disease with Many Faces	MK235-ED-X	Chronic Nonbacterial Osteomyelitis: The Role of Whole-Body MRI
		MK250-ED-X	Death is Not in the Air: Imaging Review of Necrotizing Fasciitis (NF)
		MK256-ED-X	Skeletal Involvement in Gaucher's Disease: From Macrophage to Bone
		MK257-ED-X	Imaging the 'Forgotten' Sternoclavicular Joint: Pathology, Pitfalls, and Pearls
		MK259-ED-X	A Comprehensive Review of Diabetic Foot Complications



MK260-ED-X	Image of Musculoskeletal Fungal Infections: Educational Review Based on Cases	MK105-ED-X	Osteomyelitis - A Common Disease with Many Faces
AI108-ED-X	Neural Networks in Deep Learning: A Simplified Explanation for Radiologists	MK112-ED-X	Synovial Disorders: A Radiographic Review
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MK100-ED-X	Differentiation of Hand Small Joints Arthropathy in Patients with Rheumatoid Arthritis and Psoriatic Arthritis: Multimodality Imaging Characteristics	MK232-ED-X	Musculoskeletal Tuberculosis: A Practical Guide for Residents
		MK235-ED-X	Chronic Nonbacterial Osteomyelitis: The Role of Whole-Body MRI
		MK250-ED-X	Death is Not in the Air: Imaging Review of Necrotizing Fasciitis (NF)
		MK256-ED-X	Skeletal Involvement in Gaucher's Disease: From Macrophage to Bone



- MK257-ED-X** Imaging the 'Forgotten' Sternoclavicular Joint: Pathology, Pitfalls, and Pearls
- MK259-ED-X** A Comprehensive Review of Diabetic Foot Complications
- MK260-ED-X** Image of Musculoskeletal Fungal Infections: Educational Review Based on Cases

Demonstrations

NCI Crowds Cure Cancer: Help Annotate Data from the Cancer Imaging Archive

Session AI050 AI Community, Learning Center

Prediction of CT Perfusion Arterial and Venous Time-attenuation Curve Parameters Using Deep Learning Systems: Proof-of-concept for Developing a Personalized CT Perfusion Protocol for Acute Stroke Workup

Session AI029 AI Community, Learning Center



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Hangzhou YITU Healthcare Technology Co LTD	11113
HEALTHLEVEL	10743
HealthMyne	10713
HeartVista Inc	11137
Hologic, Inc	10120
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