

PRESENTATIONS/ABSTRACTS

11TH ANNUAL SIEMENS HEALTHINEERS OUTSTANDING ACADEMIC RESEARCH (SOAR) ORAL PRESENTATIONS

Marquis Salon 12
July 7, 1:45 PM – 3:15 PM

84 ZHEN QIAN, PHD

Integration of Regional Calcium Density and Volume Predicts Five-Year All-Cause Mortality in Age-, Sex-, and Agatston Score-Matched Patient

85 JONATHAN WEIR-MCCALL MBCHB

Comparison of the Effects of ECG Gating and Breath-holds on Visualisation of the Coronary Arteries in Neonates



86 ROBBERT VAN HAMERSVELT MD

Initial Experience with a Rapid Non-invasive On-site Estimation of CT Fractional Flow Reserve

87 BALAJI TAMARAPPOO MD, PHD

Detection of Changes in Plaque Composition in Response to Changes in LDL by Coronary CT Angiography

88 SEAMUS WHELTON MD, MPH

Modeling the Relationship Between Coronary Artery Calcium (CAC) and Cause-specific Mortality as a Function of Age

89 MÁRTON KOLOSSVÁRY MD

Radiomics is Capable of Identifying High Risk Atherosclerotic Plaques using Coronary CT Angiography

11TH ANNUAL TOSHIBA MEDICAL YOUNG INVESTIGATOR AWARDS (YIA)

Marquis Salon 12
July 8, 10:30 AM – 12:00 PM

178 EVANGELOS OIKONOMOU MD

UK SYMBOL Imaging Phenotyping of Perivascular Adipose Tissue Using Computed Tomography Detects Coronary Inflammation in Humans



179 KENJI FUKUSHIMA MD, PHD

Coronary Flow Quantification Using Dynamic 320-detector CT Angiography with Motion Coherence Image Processing; Comparison to Trans Attenuation Gradient

180 ABDUL RAHMAN IHDAYHID MB, BS

Diagnostic Performance of CT Derived Fractional Flow Reserve using Reduced Order Modelling and CT Stress Myocardial Perfusion Imaging for Detection of Haemodynamically Significant Coronary Stenosis

181 ZIH HUEI WANG, MS

Tissue-Mimicking 3D Printing for the Prediction of Post-TAVR Paravalvular Leak In Vitro

182 ROBERTO DANTAS, JR., MD

Myocardial Perfusion Imaging Evaluation with 320-row MDCT Compared to Rubidium-82 PET for the Detection of Significant Coronary Artery Disease

183 DANIEL GROVES, MD

Validation of Single-Energy Metal Artifact Reduction in Cardiac Computed Tomography: A Clinical and Phantom Study

EDUCATIONAL ABSTRACTS

Exhibit Hall
Abstracts 201 – 218

201 FAY NOUS, MD

On-site Clinical-operated Ct-FFR Analysis: All You Need To Know

202 ABDUL RAHMAN IHDAYHID MB, BS

Assessment of Serial Coronary Stenoses with Non-invasive CT Derived Fractional Flow Reserve and Treatment Planning with Novel Virtual Percutaneous Coronary Intervention Software

203 PRAVEEN PG RAO, MB, BS

Pictorial Review of Cardiac and Non Cardiac Incidental Findings on Pre-Procedural CT for Trans-Aortic Valvular Replacement (TAVR)



204 APARNA DESHPANDE, PHD

Congenital Heart Disease: The Vital Role Of CT



205 RYAN PRENTICE, DO

Use of Cardiac Computed Tomography (Cardiac CT) as a Comprehensive Imaging Modality in Mechanical Aortic Valve Dehiscence

206 CAMERON HENRY

Volume Visualization Workflows for Cardiovascular Computed Tomography

207 CHRISTOPHER WILLIAMSON

Gateways To The Heart - Incidental CT Findings of Anomalous Systemic Venous Connections and the Clinical Challenges They Present

208 SREEJA SANAMPUDI

A Research Schema for Analysis of Aorta Morphology

209 SACHIN SABOO, MD
The Pros and Cons of
CT-FFR – Bina Franklin

210 SACHIN SABOO, MD
CTA of Cardiac Valves

211 HAROLD GOERNE
Coronary Stenosis, Beyond
Atherosclerosis: Spectrum of
CTA Findings

212 JAMES FURGERSON, MD
Coronary CTA Imaging of
Anomalous Origin of the Left
Main Coronary Artery from the
Opposite Sinus (L-ACAOS)

213 ROBIN BRUSEN
Dynamic Myocardial CT Perfusion
Processing Techniques

214 RON JACOB, MD
Utility Of Cardiac CT
And CT Perfusion In Clinical
Practice - Perspectives in a
Multimodality Environment

215 NAVI NALLASAMY, MB, BS
Critical Features in the Differential
Diagnosis of Pulmonary Embolism
and Aortic Dissection

216 LESELLE NORVILLE, BA
Weird Manifestations of Type
A Aortic Dissections

217 TEFALDET MICHAEL
Young Patients Presenting With
Chest Pain: A Role Of Cardiac
Computed Tomography Imaging
In Diagnosis And Management

218 DIANA LOPEZ GARCIA, MD
Anomalous Origin of the Left
Coronary Artery from the Pulmonary
Artery, Adulthood Presentation

RAPID FIRE EPOSTERS

Exhibit Hall

July 7 10:00 AM – 10:45 AM
Abstracts 67 – 76

**67 SHAW HUA (ANTHONY) KUEH
MD**
Fractional Flow Reserve
Computed Tomography

(FFRCT) Reclassification
Rate Using Value Distal to
Lesion Compared to Value
in Most Distal Vessel

**68 GOWTHAM R. GRANDHI
MB, BS**
Combined Stress CT Perfusion/
Coronary CT Angiography
Has Shorter Length of Stay
and Lower Direct Costs
When Compared to SPECT
in Patients Presenting
with Chest Pain to the
Emergency Department

69 JULIANA BELLO
CAD-RADS™ Cost
Effectiveness Impact in
the Emergency Department
– Real World Scenario

**70 ATTILA FEHER
MD, PHD**
Computed Tomographic
Angiography Assessment of
Coronary Vasoreactivity in
Response to Adenosine and
Dobutamine: Implications
in Chemotherapy Induced
Cardiotoxicity

**71 STEPHANIE L. SELLERS
MSC**
Coronary Artery Lumen
Volume to Myocardial Mass
Ratio in Primary Microvascular
Angina: A Novel Imaging
Approach to a Challenging
Clinical Dilemma

**72 EDWARD PASSEN
MD, FSCCT**
Quantitative Coronary CT
Angiography Using Third
Generation Dual Source CT:
A Head to Head Comparison
with Quantitative Invasive
Coronary Angiography

**73 SUBRAMANYA G. UPADHYAYA
MBBS, MRCP**
Cardiovascular CT
Service Model Inception
and Evolution: A Successful
Experience of a District General
Hospital in the UK



**74 AKIRA KURAT
MD, PHD**
Analytical Coronary Sinus Imaging
on Computed Tomography for
Guiding Left Ventricular Lead
Placement in Cardiovascular
Resynchronization Therapy

**75 MARK G. RABBAT
MD, FSCCT**
Fractional Flow Reserve Derived
from Coronary Computed
Tomography Improves the
Diagnostic Yield of Elective
Invasive Coronary Angiography
in Patients with Equivocal
Non-Invasive Cardiovascular
Stress Tests

RAPID FIRE EPOSTERS

Exhibit Hall

July 7 10:00 AM – 10:45 AM
Abstracts 168 – 177

168 FRANCES WANG
Coronary Artery Calcium
Score Adds to the CONFIRM
Risk Score in Prediction of
Obstructive Disease and
Cardiovascular Risk in Stable
Patients with Suspected
Coronary Artery Disease

**169 KAITLIN B. BARON
MD**
Atherosclerotic Burden in 21st
Century Adults by Coronary CTA:
Is Age 50 the Magic Number?

**170 EDWARD PASSEN
MD, FSCCT**
Coronary Artery Calcium
Screening Program for
Self-Referred Patients

171 KHALIL ANCHOUCHE
Machine Learning Model
for Prediction of Coronary
Artery Calcification

**172 MARKUS GOELLER
MD**
Epicardial Fat Volume is
Related to Early Subclinical
Atherosclerosis and
Inflammation in
Asymptomatic Patient

173 TIM LEINER, FSCCT

An Adversarial Deep Learning Approach to Coronary CT Radiation Reduction

174 CHRISTOPHER D. MAROULES MD, FSCCT

Coronary Artery Disease Reporting and Data System (CAD-RADS™): Inter-Observer Agreement for Assessment Categories and Modifiers

175 MATTHEW J. BUDOFF MD, FSCCT

Universal Age-Gender-Ethnicity Corrected Coronary Calcium Score Percentiles: A Meta-Analysis

176 MICHAELA M. HELL, MD

CT-Based 3D Printing for Sizing, Device Positioning and Prediction of Device Compression in the Context of Left Atrial Appendage Occlusion: A Comparison to Transesophageal Echocardiography

177 EVA MARET, MD, PHD

Left Ventricular Mass, By Cardiovascular CT, is Independent of Type and Severity of Aortic Valve Stenosis

ORAL ABSTRACTS SESSION I

*Myocardial Perfusion/
FFR/Physiologic Imaging
Marquis Salon 12
July 7 11:00 AM – 12:30 PM
Abstracts 77 – 83*

77 JUNJIE YANG

Relative Myocardial Blood Flow by Dynamic CT Myocardial Perfusion Imaging for Identification of Hemodynamically Significant Coronary Artery Disease

79 SABEE MOLLOI, MD

Quantification of Myocardial

Blood Flow Using Low-Dose Computed Tomography

80 MONEAL SHAH, MD

Application of FFRCT in a Closed Payer/Provider Setting: A Real-World Experience

81 MHAIRI K. DORIS, MD, PHD

Coronary Plaque Characteristics Predict Abnormal Whole Vessel Noninvasive Fractional Flow Reserve In Vessels with Non-Obstructive Stenosis

82 FAY NOUS, MD

Dynamic CT Myocardial Perfusion Imaging Can Be Performed At Substantial Lower Radiation Dose with 3rd Generation Dual-Source CT

83 BRIAN KO, MD, PHD

Diagnostic Performance of CT Derived Fractional Flow Reserve Using Three Dimensional Fluid Modelling and CT Stress Myocardial Perfusion Imaging for Detection of Haemodynamically Significant Coronary Stenosis

ORAL ABSTRACTS SESSION II

*Novel Hardware: Plaque Imaging; CHD
Marquis Salon 12
July 7 3:45 PM – 5:00 PM
Abstracts 90 – 95*

90 JAKOB PARK

Dual-Energy Imaging of Culprit Coronary Lesions of Acute Coronary Syndrome Characterizes the Extent of Lipid Content as Compared to Intravascular Optical Coherence Tomography

91 JIE J. CAO, MD, MPH

Diagnostic Performance of CT Angiogram in Coronary Plaque Characterization: A Comparison with Optical Coherence Tomography

92 JUN-MEI ZHANG

Diagnostic Performance of Fractional Flow Reserve Derived

from Simplified Modeling and Computed Tomography Coronary Angiography on Discriminating Ischemic Coronary Lesions

93 WOLFRAM R. JARISCH

Convergence of Non-Linear Iterative CT Reconstruction Using a Pair of Data-Dependent Update Matrices: A Theoretical Extension of a Single Update Matrix Approach Avoiding Time-Consuming Numerical Hill Climbing

94 ALEXIA ROSSI

Non-Invasive Versus Invasive Assessment of Functionally Significant Coronary Lesions: Dynamic Myocardial Computed Tomography, Cardiovascular Magnetic Resonance and Invasive Fractional Flow Reserve

95 JIEXI WANG

The Chest X-Ray in Complex Operated Adult Congenital Heart Disease: 3-Dimensional CCTA Correlation

ORAL ABSTRACTS SESSION III

*Non-Contrast Cardiac CT;
Coronary Calcium
Marquis Salon 12
July 8 8:00 AM – 9:30 AM
Abstracts 96 – 101*

96 FRANCES WANG

Gender Differences in Age-Adjusted Percentiles of the Number of Calcified Coronary Plaques in Asymptomatic Patients Undergoing Coronary Calcium Scanning

97 GOWTHAM R. GRANDHI MB, BS

Interplay of Coronary Artery Calcium Testing and Burden of Traditional Risk Factors for Cause-Specific Mortality: CAC Consortium

98 ANNEMARIE M. DEN HARDER

Towards Understanding the Role of the Hematological