ISCE 2024 Tentative Program

Wednesday, April 3

19:30 - 22:00  Registration
19:30 - 22:00  Opening Reception

Thursday, April 4

06:30 - 12:00  Registration
07:00 - 08:00  Breakfast
07:00 – 08:00  ISCE Board of Directors Breakfast
               Board Members Only
08:15 - 08:25  Welcome and Opening Remarks
               Conference Chair: Roger Abächerli
08:25 - 10:30  TUTORIAL: Collecting, Processing, and Analyzing Physiological Data from Hospital Sources
               Chair Overview
               Mary G. Carey & Dillon J. Dzikowicz, University of Rochester, USA
08:30 - 09:00  The Role of Bedside Telemetry: From Diagnosing Arrhythmia to Predictive Models of Patient Instability
               Ran Xiao, Emory University, Atlanta GA, USA
09:00 - 09:30  Designing Infrastructure to Support Data Extraction of Hospital ECG Data
               Eric Helfenbein, Philips Healthcare, USA
09:30 - 10:00  Maintaining and Clinical Appraisal of a Physiological Database
               Michele M Pelter, University of California San Francisco, USA
10:00 - 10:30  Extracting, Linking, and Analyzing Danish Health Registry Data including 12-lead ECGs to Create a Comprehensive National Database
               Claus Graff, Aalborg University, Gistrup, Denmark
10:30 - 10:50  BREAK
10:50 - 12:25  Session I: Submitted Abstracts
10:50 - 10:55  Chair Overview
               Session Chair: Roger Abächerli
10:55 - 11:25  Tracking and recording the recurrence rate of atrial fibrillation post-ablation using wearable ambulatory ECGs capable of continuous operation for 15 days
               Shen Luo, StarCare Innovations Co. Ltd
HEAR-U: An updated HEAR score to rule-out ACS in the prehospital setting
J. J. Garcia, Department of Computer Science, University of North Carolina at Chapel Hill, Chapel Hill, NC, USA

Estimating Ejection Fraction from the 12 Lead ECG in Acute Heart Failure
Sunita Bhattarai Pokhrel, School of Nursing, University of Rochester, NY

12:25 - 17:00
Lunch and Afternoon Discussions

17:00 - 18:00
Poster Session 1
Session Chair: Thomas Hilbel

18:00 - 19:00
Dinner

19:00 - 20:35
Session II - Neurocardiology from the ECG Perspective: Can We Understand, Measure, and Practically Use It?

19:00 - 19:05
Chair Overview
Session Chairs: Cees Swenne; Vladimir Shusterman

19:05 - 19:35
Neurocardiological Mechanisms: Major Elements and Effects
Cees Swenne, Leiden University Medical Center

19:35 - 20:05
Direct Stimulation of the Autonomic Nervous System and Arrhythmias
Siamak Salavatian, University of Pittsburgh, USA

20:05 - 20:35
Can We Discern Neurocardiological Effects From Noninvasive Measurements?
Vladimir Shusterman, University of Iowa, USA

20:35 - 21:05
Triggers of Arrhythmias: Mental and Physical Stress
Stavros Stavrakis, University of Oklahoma, USA

21:05 - 21:25
BREAK

21:25 - 22:30
Session III - Identifying High Risk Patients with Acute Coronary Syndromes

21:25 - 21:30
Chair Overview
Session Chair: Peter Clemmensen

21:30 - 22:00
Transfer Learning to Overcome Sample Size Limitations in Training Electrocardiographic Deep Neural Networks for the Early Diagnosis of Myocardial Infarction.
Ivo Strebel, University Hospital Basel

22:00 - 22:30
Right Bundle Branch Block in Suspected Acute Coronary Syndromes, Diagnostic Yield and Prognosis
Peter Clemmensen

22:30 – 23:00
Poster Session 1, Continued
Session Chair: Thomas Hilbel
**Friday, April 5**

07:00 - 08:00  
**Breakfast**

08:10 - 09:45  
**Session IV - The Synergistic Blend of AI and ECG Education**

08:10 - 08:15  
**Chair Overview**
*Session Chair: Anthony Kashou*

08:15 - 08:45  
**The Value of Computational Intelligence in Enhancing ECG Education**  
*Anthony Kashou*

08:45 - 09:15  
**Navigating Electrocardiogram Learning: Where AI and Education Converge**  
*Adam May, Washington University, St. Louis, USA*

09:15 - 09:45  
**Bridging the Gap: From AI-Driven ECG Innovations to Real-World Industry Implementation**  
*Ian Rowlandson, GE HealthCare*

09:45 - 10:10  
**BREAK**

10:10 - 12:45  
**Session V - MedTech Devices**

10:10 - 10:15  
**Chair Overview**  
*Session Chair: Jean-Philippe Couderc*

10:15 - 10:45  
**Big Data and Deep Learning Optimized Synthesized 12-lead ECG System**  
*David Albert, Alivecor, USA*

10:45 - 11:15  
**Sport DB 2.0: A New Database of Data Acquired by Wearable and Portable Devices While Practicing Sport**  
*Laura Burattini, Marche University, Italy*

11:15 - 11:45  
**Enhancing Cardiac Care: Vivalink’s Biometric Data Platform and Multivital Patch for Improved Patient Compliance and Clinical Decision Making**  
*Ahmad Saleh, Vivalink Inc., USA*

11:45-12:15  
**Assessing Signal Quality of a Single-Lead ECG Patch Over 14-Days among Patients with Atrial Fibrillation**  
*Dillon Dzikowicz, School of Nursing, University of Rochester, NY*

12:15 – 12:30  
**ISCE Business Session**

12:30 – 17:00  
**Lunch and Afternoon Discussion**
ISCE Board of Directors Meeting
Board Members Only

17:00 - 18:00
Poster Session 2
Session Chair: Laura Burattini

18:00 - 19:00
Dinner

19:00 - 19:50
Kenichi Harumi Plenary Address presented by JJ Schmid
Session Chair: Roger Abächerli

19:50 - 20:00
BREAK

20:00 - 22:05
Session VI: Jos Willems Early Career Investigators Competition

20:00 - 20:05
Chair Overview
Session Chairs: Michele Pelter; Patrick Noffke

20:05 - 20:35
Atrial Fibrillation Prediction from Overnight Polysomnograms
Zuzana Koscova

20:35 - 21:05
Residual-attention Deep Learning Model for Atrial Fibrillation Detection from Holter Recordings
Moklesur Rahman

21:05 - 21:35
Saliency Maps to Enhance Explainability of Occlusion Myocardial Infarction Classification Among Pre-Hospital Chest Pain Patients
Nathan Riek

21:35 - 22:05
Revealing the Atrial Substrate: A Deep Learning Approach to Predict the Atrial Substrate Using 12-Lead ECG Analysis
Ishan Vatsaraj

22:05 - 23:00
Poster Session 2 Continued
Session Chair: Laura Burattini

Saturday, April 6

07:00 - 08:00
Breakfast

08:10 - 09:45
Session VII: How to Bring an ECG-AI into the Market

08:10 - 08:15
Chair Overview
Session Chair: Brian Young

08:15 - 08:45
MedTech AI Regulation in Europe Compared to the USA
Roger Abächerli, HSLU

08:45 - 09:15
806010-2-89 ECG standard
Loriano Galeotti, US FDA

09:15 - 09:45 Revolutionizing Cardiac Care: Exploring the Impact of AI-ECG FDA Breakthrough Device Designation on Clinical Practice
Suave Lobodzinski

09:45 - 10:15 AI-ECG screening strategies to detect heart disease in primary health care
Tom Ribiera

10:15 - 10:40 BREAK

10:40 - 12:15 Session VIII: The T-wave related to the cardiac anatomy

10:40 - 10:45 Chair Overview
Session Chair: Peter van Dam

10:45 - 11:15 ECG derived Anatomical Repolarization Gradients in CRT-patients
Ksenia Sedova, Department of Biomedical Technology, Faculty of Biomedical Engineering, Czech Technical University in Prague, Sitna sq. 3105, 27201, Kladno, Czech Republic

11:15 – 11:45 The local Ventricular Repolarization Gradients Estimated from Normal and Abnormal ECGs
Peter van Dam, Center for Digital Medicine and Robotics, Jagiellonian University Medical College, Krakow, Poland

11:45 - 12:15 Animal ECG Competition
Jørgen K. Kanters, Laboratory of Experimental Cardiology, Dept. of Biomedical Sciences, University of Copenhagen, DK2200 Copenhagen N

12:15 - 17:00 Lunch and Afternoon Discussion

17:00 - 19:00 Session IX: ISCE’s 40th Birthday

17:00 - 17:10 Chair Overview
Session Chair: Roger Abächerli

17:10 - 17:50 Short History of ISCE
To be announced soon

17:50 - 18:05 Break

18:05 - 18:15 Animal ECG Competition
Jørgen K. Kanters, Laboratory of Experimental Cardiology, Dept. of Biomedical Sciences, University of Copenhagen, DK2200 Copenhagen N

18:15 – 19:00 ECG Jeopardy
Anthony Kashou

19:00 - 22:00 Dinner Banquet

Poster Awards
Jos Willems Early Career Investigators Competition Awards

President’s Remarks

Sunday, April 7

07:30 - 09:00 Closing Breakfast