

# ISCE 2019, Atlantic Beach, Florida, USA

Preliminary Conference Program, version 20190304

	<b>WEDNESDAY, APRIL 10, 2019</b>	
<b>19:00-21:00</b>	<b>Opening reception</b>	

<b>THURSDAY, APRIL 11, 2019</b>		<b>Chair/Cochair</b>
<b>07:00-08:00</b>	<b>Breakfast</b>	
<b>08:15-08:25</b>	<b>Welcome and Opening Remarks</b>	<b>Cees Swenne</b>
<b>08:25-10:30</b>	<b>Tutorial: Subclinical Atrial Fibrillation</b>	<b>Pyotr Platonov</b>
08:25-08:30	<i>Chair: Overview</i>	
08:30-09:00	<i>Pyotr Platonov, Lund University: Clinical problem</i>	
09:00-09:30	<i>Martin Stridh, Lund University: Signal processing perspective</i>	
09:30-10:00	<i>Mirko de Melis, Medtronic: Industry perspective</i>	
10:00-10:30	<i>Jean-Philippe Couderc, University of Rochester: The Video PhotoplethysmoGram (VPG)</i>	
<b>10:30-10:50</b>	<b>Break</b>	
<b>10:50-12:30</b>	<b>Session 1: Updates 1</b>	<b>Peter Macfarlane</b>
10:50-10:55	<i>Chair: Overview</i>	
10:55-11:25	<i>Brian Young, GE: New standards for ECG interpretation</i>	
11:25-11:55	<i>David Strauss, FDA: An FDA perspective on current ECG device development and drug safety</i>	
11:55-12:25	<i>Elsayed Soliman, Wake Forest School of Medicine, Winston-Salem: The role of the ECG in current clinical trials</i>	
12:25-12:30	<i>Peter Macfarlane, University of Glasgow: Tribute to Pentti Rautaharju (1932-2018)</i>	
<b>12:30-17:00</b>	<b>Lunch and Afternoon Discussions</b>	
<b>17:00-18:00</b>	<b>Poster Session 1</b>	
101	<i>Ben Bailey, Philips: Influence of left arm and left leg ECG electrode reversal on lateral and inferior STEMI detection</i>	
102	<i>Mikhail Chmelevsky, Almazov National Medical Research Centre, St. Petersburg: Single-center cross-sectional study of novel noninvasive ECG multivariate analysis in patients with wide complex arrhythmias</i>	
103	<i>Johan de Bie, WelchAllyn Cardiology: Interpretation and measurement consistency of seven ECG computer programs</i>	
104	<i>Yama Fakhri, The Heart Centre, Rigshospitalet, Copenhagen: Diagnostic performances of a new ECG algorithm for reducing false positive cases in a selected high prevalent STEMI population</i>	
105	<i>Werner Bystricky, TSD, Langenburg, Germany: Determination of ventricular excitation propagation in abnormal heart beats using a moving dipole model</i>	
106	<i>Mikhail Chmelevsky, Almazov National Medical Research Center, St. Petersburg: Evaluation of inter-observer variability in ECGI mapping accuracy of ventricular focal arrhythmias</i>	
107	<i>Peter van Dam, Peacs BV: Prediction of the PVC origin using the standard 12-lead ECG: comparison of the accuracy of a novel automated ECG-vector based method to manual expert interpretation</i>	
108	<i>Daniel Guldenring, HTW Berlin: Which part of the P-QRS-T is best when developing linear ECG-lead transformations for the performance assessment of patch based electrocardiographic devices?</i>	
109	<i>Suave Lobodzinski, California State University: Synthesis of standard 12-lead electrocardiograms from asynchronous bipolar leads</i>	
110	<i>Ramun Schmid, Schiller AG: An error constrained, spatial ECG denoising algorithm</i>	

111	<i>Dillon J. Dzikowicz</i> , University of Rochester: Prolong QTc Interval is associated with poor pulse pressure during exercise which may be a proxy of arterial stiffness	
112	<i>Behnaz Ghoraani</i> , Florida Atlantic University: Effectiveness of T wave alternans testing for risk stratification of ventricular tachyarrhythmias and sudden death in patients with cardiomyopathy	
<b>18:00-19:00</b>	<b>Dinner</b>	
<b>19:00-20:05</b>	<b>Session 2: Selected abstracts 1</b>	<b>Cees Swenne</b>
19:00-19:05	<i>Chair: Overview</i>	
19:05-19:35	<i>Danila Potyagaylo</i> , EP Solutions SA: ECG-adapted fastest route algorithm can improve non-invasive localization of focal arrhythmias in CRT patients	
19:35-20:05	<i>Peter van Dam</i> , Peacs BV: Accuracy of a novel iECG-vector method: a new view into the onset of ventricular activation	
<b>20:05-20:15</b>	<b>Break</b>	
<b>20:15-21:50</b>	<b>Session 3: ECG Imaging</b>	<b>Linwei Wang Rob Macleod</b>
20:15-20:20	<i>Chair: Overview</i>	
20:20-20:50	<i>Ping Jia</i> , Medtronic: Bench to bedside: evolution and vision for electrocardiographic imaging	
20:50-21:20	<i>Laura Bear</i> , LIRYC, University of Bordeaux: Advantages and pitfalls of noninvasive electrocardiographic imaging	
21:20-21:50	<i>J. Michael Mangrum</i> , University of Virginia School of Medicine: CardioInsight 101: use in atrial arrhythmias	
<b>21:50-22:40</b>	<b>Poster Session 1: Continuing Discussion</b>	

	<b>FRIDAY, APRIL 12, 2019</b>	<b>Chair/Cochair</b>
<b>07:00-08:00</b>	<b>Breakfast</b>	
<b>08:15-09:20</b>	<b>Session 4: Personal ECG</b>	<b>Paul Kligfield</b>
08:15-08:20	<i>Chair: Overview</i>	
08:20-08:40	<i>Dave Albert</i> , Alivecor: Personal ECG devices including smartphone and watch technologies	
08:40-09:00	<i>Mohsen Mollazadeh</i> , Apple Inc.: Atrial Fibrillation classification using the ECG app in Apple Watch	
09:00-09:20	Panel Discussion (this replaces the discussions after the presentations)	
<b>09:20-10:25</b>	<b>Session 5: Updates 2</b>	<b>Bob Lux</b>
09:20-09:50	<i>Cindy Green</i> , Duke University: Research implications of the FDA ECG warehouse and related resources	
09:50-10:20	<i>Rob Macleod</i> , University of Utah: Present and future of body surface mapping	
10:20-10:25	<i>Rob Macleod</i> , University of Utah: Tribute to Fred Kornreich (1938-2018)	
<b>10:25-10:45</b>	<b>Break</b>	
<b>10:45-12:15</b>	<b>Session 6: Selected abstracts 2</b>	<b>David Strauss</b>
10:45-11:15	<i>Jimo Borjigin</i> , University of Michigan: Electrocardiomatrix (ECM) promotes accurate detection of atrial fibrillation in stroke patients	
11:15-11:45	<i>Marina Demidova</i> , Lund University: Early repolarization pattern on historical ECG does not predict ventricular fibrillation during STEMI	
11:45-12:15	<i>Michele Pelter</i> , University of California, San Francisco School of Nursing: Consolidation of electrocardiographic alarms in ICU patients reduces nuisance alarms and alarm fatigue	
<b>12:15-12:30</b>	<b>ISCE Business Session</b>	
<b>12:30-17:00</b>	<b>Lunch and afternoon discussions</b>	

<b>17:00-18:00</b>	<b>Poster Session 2</b>	
201	<i>Salah Al-Zaiti</i> , University of Pittsburgh: Electrocardiographic methods for the prompt identification of coronary events (EMPIRE): algorithm testing & validation on an independent training cohort	
202	<i>Sushravya Raghunath</i> , Geisinger Health: Deep neural networks can predict one-year mortality and incident atrial fibrillation from raw 12-lead electrocardiogram voltage data	
203	<i>Scott Roset</i> , Draeger Medical: Convolutional neural network for signal quality index	
204	<i>Ting Yang</i> , Philips Healthcare: Detection of strict left bundle branch block using random forest and deep neural network	
205	<i>Donald Musgrove</i> , Medtronic: Deep neural network approach to classifying VT/VF episodes	
206	<i>Khaled Rjoob</i> , Ulster University: Feature engineering and machine learning for the auto-detection of misplaced V1 and V2 chest electrodes when recording 12-lead ECGs ( <i>Jos Willems Early Career Investigators Competition submission</i> )	
207	<i>Alessandro Montemurro</i> , Technical University of Denmark: Temporal convolutional networks for automatic ECG feature extraction ( <i>Jos Willems Early Career Investigators Competition submission</i> )	
208	<i>Reza Firoozabadi</i> , Philips Healthcare: Suppression of false automated STEMI detections in low-quality ECG recordings	
209	<i>Sukardi Suba</i> , University of California, San Francisco (UCSF): Characteristic differences between actionable and non-actionable true ventricular tachycardia alarms	
210	<i>John Wang</i> , Philips Healthcare: Real-time ECG monitoring for patients with implantable pacemaker - A review of current status and future directions	
211	<i>Wei Zong</i> , Philips Healthcare: Reducing insignificant high/low heart rate alarms using the cross-limit area based algorithm	
212	<i>Jonas Isaksen</i> , University of Copenhagen: Electrocardiographic effect of thyroid hormones	
<b>18:00-19:00</b>	<b>Dinner</b>	
<b>19:00-19:50</b>	<b>Kenichi Harumi Plenary Address</b>	<b>Cees Swenne</b>
19:00-19:05	<i>Chair</i> : Introduction	
19:05-19:50	<i>Frits Prinzen</i> , Maastricht University: Conventional and novel ECG analysis for use in CRT	
<b>19:50-20:00</b>	<b>Break</b>	
<b>20:00-22:05</b>	<b>Session 7: Jos Willems Early Career Investigators Competition</b>	<b>Shen Luo Michele Pelter</b>
20:00-20:05	<i>Chair</i> : Overview	
20:05-20:35	<i>Danila Potyagaylo</i> , EP Solutions SA: Combination of lead-field theory with cardiac vector direction: A novel ECG imaging method for localization of focal ventricular activation	
20:35-21:05	<i>Jacob Melgaard</i> , Aalborg University: Method to visualize and quantify ventricular dyssynchrony	
21:05-21:35	<i>Ali Rababah</i> , Ulster University: Novel hybrid method for interpolating missing information in body surface potential maps	
21:35-22:05	<i>Gabriela Paixao</i> , Federal University of Minas Gerais: Evaluation of mortality in bundle branch block patients from an electronic cohort - the CODE study	
<b>22:05-22:50</b>	<b>Poster Session 2: Continuing Discussion</b>	

<b>SATURDAY, APRIL 13, 2019</b>		<b>Chair/Cochair</b>
<b>07:15-08:15</b>	<b>Breakfast</b>	
<b>08:25-10:00</b>	<b>Session 8: ECG-based Decision Making</b>	<b>Raymond Bond</b>
08:25-08:30	<i>Chair: Overview</i>	
08:30-09:00	<i>Richard Gregg, Philips Healthcare: Discovering similar ECGs for real time decision support</i>	
09:00-09:30	<i>Charles Knoery, Raigmore District General Hospital, Inverness (NHS Highland, Scotland): Calibrating trust using confidence indexes with ECG algorithms</i>	
09:30-10:00	<i>Victoria McGilligan, Ulster University: Blood biomarkers to augment ECG decision making</i>	
<b>10:00-10:25</b>	<b>Break</b>	
<b>10:25-12:30</b>	<b>Session 9: Machine learning</b>	<b>Ana Minchole</b>
10:25-10:30	<i>Chair: Overview</i>	
10:30-10:50	<i>Ana Minchole, University of Oxford: Machine learning in electrocardiography</i>	
10:50-11:10	<i>Rob Brisk, Ulster University: Deep learning to automatically interpret images of the electrocardiogram: do we need the raw samples? (Jos Willems Early Career Investigators Competition submission)</i>	
11:10-11:30	<i>Saman Parvaneh, Philips Research North America: Cardiac arrhythmia detection using deep learning</i>	
11:30-11:50	<i>Antonio Ribeiro, Federal University of Minas Gerais, Belo Horizonte, Brazil: Automatic interpretation of the 12-lead ECG by AI algorithms</i>	
11:50-12:30	<i>Rule-based systems versus artificial intelligence algorithms. Round table, introduced by Antonio Ribeiro (discussions immediately after the previous talks are restricted to 5 minutes to facilitate this round table)</i>	
<b>12:30-17:25</b>	<b>Lunch and Afternoon Discussions</b>	
<b>17:25-19:00</b>	<b>Session 10: ECG risk predictors in the retrospective EU-CERT-ICD data</b>	<b>Marek Malik</b>
17:25-17:30	<i>Chair: Overview</i>	
17:30-18:00	<i>Markus Zabel, Universitätsmedizin Göttingen: Present criteria for prophylactic ICD implantation</i>	
18:00-18:30	<i>Georg Schmidt, Technische Universität München: European experience with prophylactic ICD implantations</i>	
18:30-19:00	<i>Marek Malik, Imperial College London: ECG predictors of mortality and of ICD shocks in the retrospective data of EU-CERT-ICD study</i>	
<b>19:00-22:00</b>	<b>Dinner Banquet</b>	
	Poster Awards Jos Willems Early Career Investigators Competition Awards President's Remarks Conference Chair's remarks	

<b>SUNDAY, APRIL 14, 2019</b>		
<b>7:30-9:00</b>	<b>Closing breakfast</b>	