



IEEE CBMS 2020: The 33rd IEEE International Symposium on Computer-Based Medical Systems

(CBMS) Mayo Clinic, Rochester, MN, USA (July 28-30, 2020)

Program available: <http://cbms2020.org/program.html>

Day 3: July 30, 2020 and Time zone: GMT-4:00

Important: Zoom links are provided to registered authors/speakers and sessions chairs via email.

Hour (GMT-4) Event

8:00-9:00	Keynote address (<i>Bradley J Erickson</i>) Zoom: Room 4 <Chair, Zalelem Temesgen>
9:00-9:30	Presentation booster Zoom: Room 4 <Chair, Zalelem Temesgen>
9:30-9:45	Break
9:45-10:45	Session 1
10:45-11:00	Break
11:00-12:00	Session 2
12:00-13:00	Lunch break
13:00-14:00	Session 3
14:00-14:15	Break
14:15-14:45	Award ceremony & closing
14:45-15:45	Networking



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Session 1 Data Analysis and Knowledge Discovery

(Chair, Linlin Shen)
Zoom: Room 1

- 88 Creating a metamodel based on machine learning to identify the sentiment of vaccine and disease-related messages in Twitter: the MAVIS study
- 170 On using meta-features to learn under class skew in biomedical domains
- 23 Utilizing Oncology-Related Social Media Content to Model Information-Seeking Behaviors towards a Model of Shared Decision Making
- 171 Multi-language Concept Normalisation of Clinical Cohorts

Session 1 Database, App, and Management Systems

(Chair, Daniel Elliott)
Zoom: Room 2

- 98 Improving Data Quality in Medical Research: A Monitoring Architecture for Clinical and Translational Data Warehouses
- 157 Mobile-Augmented Smart Queue Management System for Hospitals
- 89 Mobile Health App Database - A Repository for Quality Ratings of mHealth Apps
- 73 The Benefits of Graph Databases for the Computation of Clinical Quality Measures

Session 1 ST 3: Technological and Data-Driven Innovations in Cancer Care

(Chair, Kiran)
Zoom: Room 3



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Bastola)

- 136 Transfer Learning and Fine Tuning in Mammogram BI-RADS Classification
- 68 Nanodevices Based on Quantum Mechanics and Classical Electrodynamics as Vascular Endothelial Growth Blockers to Detain Angiogenesis
- 174 Radiomics-based non-invasive lymph node metastases prediction in breast cancer

Session 2 Data Analysis and Knowledge Discovery

(Chair, Mario Merone) Zoom: Room 1

- 90 Enhancing Recall Using Data Cleaning for Biomedical Big Data
- 4 Intrinsic and Extrinsic Evaluation of the Quality of Biomedical Embeddings in Different Languages
- 189 Time-window SIQR analysis of COVID-19 outbreak and containment measures in Italy

Session 2 Decision Support and Recommendation Systems

(Chair, JeeEun Kim) Zoom: Room 2

- 108 A HW/SW System to Detect Druses in Retinal Fundus Image for the Diagnostic of Age Related Macular Degeneration
- 173 A Recommender System to Help Discovering Cohorts in Rare Diseases
- 67 MATURE: Recommender System for MAndatory FeaTURE choices



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- 40 Identification of Temporal Changes on Patients at Risk of LONS with TPRMine: A Case Study in NICU
- 103 Enrich Rare Disease Phenotypic Characterizations via a Graph Convolutional Network based Recommendation System

Session 2 **Telemedicine Systems**

(Chair, Bridget Kane) Zoom: Room 3

- 101 Obstructive Sleep Apnea compliance: modeling home care patient profiles
- 22 Towards The Use of Smart Home Sensor Networks to Generate Predictive Activity Models
- 21 The OCARIoT Data Acquisition App

Session 3 **Privacy, Security & Informed Consent in Healthcare**

(Chair, Bridget Kane) Zoom: Room 1

- 162 Using PAPA in eHealth - Use Case Analysis and Requirements
- 87 Wearable Devices and Measurement Data: An Empirical Study on eHealth and Data Sharing
- 24 Protecting Electronic Health Records in Transit and at Rest
- 97 Converting Clinical Pathways to BPM+ Standards: A Case Study in Stable Ischemic Heart Disease

Session 3 **ST 2: Deep Learning Applications in Medical Care**



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(Chair, Klaus Schoeffmann) Zoom: Room 2

- 54 Inter-center cross-validation and finetuning without patient data sharing for predicting transcatheter aortic valve implantation outcomes
- 28 Augmentation techniques for sequential clinical data to improve Deep Learning prediction techniques
- 179 An approach to BI-RADS uncertainty levels classification via deep learning with transfer learning technique

Session 3 Data Analysis and Knowledge Discovery

(Chair, Ernestina Menasalvas) Zoom: Room 3

- 184 Evaluation of Real-Time Remote 3D Rendering of Medical Images using GPUs
- 5 Fall Detection in Clinical Notes using Language Models and Token Classifier
- 149 Mining disproportional frequent arrangements of event intervals for investigating adverse drug events
- 159 Clinical Predictive Keyboard using Statistical and Neural Language Modeling