

June 18

Social data and medical data analytics (ST5)

TIME	VENUE		
11:00		151 Eduardo P. Garcia Del Valle, Gerardo Lagunes Garcia, Alejandro Rodriguez, Lucia Prieto Santamaria, Massimiliano Zanin and Ernestina Menasalvas Ruiz	Evaluating Wikipedia as a source of information for disease understanding
11:20		43 Daniela Ferreira-Santos and Pedro Pereira Rodrigues	Finding groups in obstructive sleep apnea patients: a categorical cluster analysis
11:40	1B 364 Frödingsalen	121 Juan Luis Castro and Ignacio Martínez	STMC: Semantic Tag Medical Concept using Word2Vec representation
12:00		160 Diogo Abrantes, João Cordeiro and Alípio Jorge	Extracting adverse drug effects from user experiences: A baseline
12:15		155 Rüdiger Pryss, Manfred Reichert, Winfried Schlee, Myra Spilopoulou, Berthold Langguth and Thomas Probst	Differences between Android and iOS Users of the TrackYourTinnitus Mobile Crowdsensing mHealth Platform

Computer-Aided Diagnosis and Decision Support Systems - 1

14:00		29 José N Galveia, António Travassos and Luís A Da Silva Cruz	An Ophthalmology Clinical Decision Support System Based on Clinical Annotations, Ontologies and Images
14:20	1B 364 Frödingsalen	47 João Figueira Silva, Jorge Miguel Silva, António Guerra, Sérgio Matos and Carlos Costa	Ejection Fraction Classification in Transthoracic Echocardiography using a Deep Learning approach
14:40		48 Michael Liedlgruber, Kevin Butz, Yvonne Höller, Georgi Kuchukhidze, Alexandra Taylor, Ottavio Tomasi, Eugen Trinka and Andreas Uhl	Lateralisation matters: Discrimination of TLE and MCI based on SPHARM description of Hippocampal Shape

Computer-Aided Diagnosis and Decision Support Systems - 2

15:40		87 Ronald Anderson and Mary Baker	Ground-Truth Assessment of an SFPS Method for Sub-Group Feature Identification in Heterogeneous Data Sets
16:00	1B 364 Frödingsalen	165 Piotr Bartzczak, Hana Vrzakova, Roman Bednarik, Matti Iso-Mustajarvi, Markku Hauta-Kasari, Mikael Fraunberg, Juha E. Jääskeläinen and Antti Pekka-Elomaa	Spectral Video in Image-guided Microsurgical Applications: Integrating Technology into the Clinical Environment and Ergonomic Considerations
16:15		120 Danilo Motta, Wallace Casaca and Afonso Paiva	Fundus Image Transformation Revisited: Towards Determining More Accurate Registrations

Databases, Information and Telemedicine Systems - 1

TIME	VENUE		
11:00		1 Galina Portnova	Age changes of EEG during photo- and auditory low-frequency stimulation and assessment of fatigue
11:20		9 Paulo Barbosa, Fabio Leite, Danilo Santos, Alex Figueiredo and Katia Galdino	Introducing Traceability Information Models in Connected Health Projects
11:35	1B 306 Fryxellsalen	13 Priscila Maranhão, Gustavo Bacelar-Silva, Duarte Gonçalves-Ferreira, Maria Da Conceição Calhau, Pedro Vieira-Marques, Marle Alvarenga and Ricardo João Cruz-Correia	openEHR modeling applied to eating disorders in clinical practice
11:55		24 Marcos R. Nesso-Jr., Mirela Teixeira Cazzolato, Lucas C. Scabora, Paulo H. Oliveira, Gabriel Spadon, Jessica A. De Souza, Willian D. Oliveira, Jose F. Rodrigues-Jr., Agma J. M. Traina and Caetano Traina-Jr.	RAFIKI: Retrieval-Based Application for Imaging and Knowledge Investigation
12:15		37 Leila Yousefi, Allan Tucker, Mashaal Al-Luhaybi, Lucia Saachi, Riccardo Bellazzi and Luca Chiovato	Predicting Disease Complications Using a Step-Wise Hidden Variable Approach for Learning Dynamic Bayesian Networks

Databases, Information and Telemedicine Systems - 2

14:00		93 Alina Trifan and José Luís Oliveira	A FAIR marketplace for biomedical data custodians and clinical researchers
14:20	1B 306 Fryxellsalen	141 Julie Ann Gahan and Bridget Kane	Determining User requirements for an Audiology information System
14:40		130 Piotr Bartzczak, Matti Iso-Mustajarvi, Antti-Pekka Elomaa, Hana Vrzakova, Roman Bednarik and Mikael Fraunberg	A Portable system for on-site medical spectral imaging: pre-clinical development and early evaluation
15:00		99 Sara Khalid and Daniel Prieto-Alhambra	Cluster Analysis To Detect Drug Utilisation Patterns From Routinely Collected Medical Data

Databases, Information and Telemedicine Systems - 3

15:40		50 Eduardo Beckhauser, Alexandre Savaris, Aldo von Wangenheim and Dirk Krechel	ISO Compliant Evaluation of a Teledermatology Structured Report System for the Brazilian Public Healthcare
15:55	1B 306 Fryxellsalen	69 João Rafael Almeida, Tiago Marques Godinho, Luís Bastião Silva, Carlos Costa and José Luís Oliveira	Services Orchestration and Workflow Management in Distributed Medical Imaging Environments
16:10		111 Oliver Bertram	Current State of Interoperability in German Practice Management Systems: Insights from the TeleDerm Project
16:25		159 Qamar Natsheh, Ana Salagean and Eran Edirisinghe	Securing DICOM images based on adaptive pixel thresholding approach

June 19

Skyline poster spotlight

10:00		172 Amir Zjajo, Johan Mes, Eralp Kolagasioglu, Sumeet Kumar and Rene van Leuken	Uncertainty in Noise-Driven Steady-State Neuromorphic Network for ECG Data Classification
10:02		173 A. Andrew Miller	'Mandatory' Datasets - Storing the ICHOM Lung Cancer Data Collection in an OIS
10:04		174 Tugba Günaydin, Reis Burak Arslan, Betül Birik, Yasemin Çirak and Nurgül Dürüstan Elbasi	A Surface Electromyography Based Serious Game For Increasing Patient Participation To Physiotherapy and Rehabilitation Treatment Following Anterior Cruciate and Medial Collateral Ligaments Operations
10:06	1B 364 Frödingsalen	176 Luisa Castro, Andrea Teixeira, Susana Brás, Marcelo Santos and Cristina Santos	Towards FHR biometric identification: a comparison between compression and entropy based approaches
10:08		177 Federico Pollastri, Federico Bolelli, Roberto Paredes and Costantino Grana	Improving Skin Lesion Segmentation with Generative Adversarial Networks
10:10		178 Eduardo Beckhauser, Vinicius Andreoli Petrolini, Alexandre Savaris, Aldo von Wangenheim and Dirk Krechel	Software Quality Evaluation of a Low-cost Multimodal Telemedicine and Telehealth Station
10:12		179 Jiazhen Liu and Joseph Finkelstein	Telerehabilitation System for Personalized Exercise Engagement of Patients with Multiple Sclerosis

Hospital 4.0 (ST1) - 1

10:40		157 Pierangelo Afferni, Mario Merone and Paolo Soda	Hospital 4.0 - Innovation Methodologies in Patient-Centric model
11:00		3 Paulo Barbosa, Julia Queiroz, Alex Figueiredo, Danilo Santos and Fabio Leite	RE4CH: Requirements Engineering for Connected Health
11:20	1B 364 Frödingsalen	138 Panagiotis Katrakazas, Vasilias Costarides, Marilena Tarousi, Petros Toumpianaris, Sotiris Pavlopoulos and Dimitris Koutsouris	Business Process Modelling for a Greek Hospitals' Medical Equipment Data Center
11:40		124 Gordon Dri, Leibao Qi, Monica Vuppapapati, Arnab Bose and Anthony Solomonides	Phenotyping Diagnosis: Identification of Diagnostic Paths
12:00		46 Silvia Panicacci, Massimiliano Donati, Luca Fanucci, Irene Bellini, Francesco Profili and Paolo Francesconi	Population health management exploiting machine learning algorithms to identify high risk patients

Computer-Aided Diagnosis and Decision Support Systems - 3

10:40		22 Konstantin Obukhov, Ivan Kershner, Ilya Komol'tsev and Yury Obukhov	Machine Learning Applications To Epileptiform Activity Recognition In Rats After Traumatic Brain Injury
10:55		128 Rosa Sicilia, Ermanno Cordelli, Sara Ramella, Michele Fiore, Carlo Greco, Elisabetta Molfese, Marianna Miele, Enrica Vinciguerra, Patrizia Cornacchione, Edy Ippolito, Rolando Maria D'Angelillo, Giulio Iannello and Paolo Soda	Exploratory radiomics for predicting adaptive radiotherapy in non-small cell lung cancer
11:15	1B 306 Fryxellsalen	100 Maria Pedroto, Alípio M. Jorge, João Mendes-Moreira and Teresa Coelho	Predicting Age of Onset in TTR-FAP Patients with Genealogical Features
11:30		21 Zhiyun Xue, Sivaramakrishnan Rajaraman, Rodney Long, Sameer Antani and George Thoma	Gender Detection from Spine X-ray Images Using Deep Learning
11:50		27 Daniel Y. T. Chino, Lucas C. Scabora, Mirela T. Cazzolato, Caetano Traina Jr. and Agma Traina	ICARUS: Retrieving Skin Ulcer Images Through Bag-of-Signatures

Hospital 4.0 (ST1) - 2			e-Health and Software Systems			
14:00		88 Qi Shi and Pedro Pereira Rodrigues	Monitoring the effectiveness of clinical guidelines: is the recommendation still valid?	14:00	26 Emiliano Spera, Giovanni Gallo, Dario Allegra, Filippo Stanco, Andrea Maugeri, Annalisa Quattrocchi, Martina Barchitta and Antonella Agodi	Randomized G-computation Models in Healthcare Systems
14:20	1B 364 Frödingsalen	98 Aida Makni and Grégoire Lefebvre	Attitude Estimation for Posture Detection in eHealth Services	14:20	8 Sudanthi Wijewickrema, Bridget Copson, Xingjun Ma, Robert Briggs, James Bailey, Gregor Kennedy and Stephen O'Leary	Development and Validation of a Virtual Reality Tutor to Teach Clinically Oriented Surgical Anatomy of the Ear
14:40		108 Michael Riegler, Enrique Garcia-Ceja, Jim Torresen, Tine Nordgreen, Ketil Oedegaard, Ole Bernt Fasmer and Petter Jakobsen	Motor Activity Based Classification of Depression in Unipolar and Bipolar Patients	14:35	70 João Rafael Almeida, Joana Guimarães and José Luís Oliveira	Simplifying the digitalization of clinical protocols for diabetes
14:55		161 Privesh Ranjan, Sumit Soman, Amit Kumar Ateria and Praveen Srivastava	Streamlining Payment Workflows using a Patient Wallet for Hospital Information Systems	14:55	34 Tamara Vagg, You Yuan Tan, Cathy Shortt, Claire Hickey, Barry J. Plant and Sabin Tabirca	MHealth and Serious Game Analytics for Cystic Fibrosis Adults
				15:15	140 Gudrún Þorsteinsdóttir and Bridget Kane	An investigation into young Swedish adult's attitudes towards online health information and their Journalen
Computer-Aided Diagnosis and Decision Support Systems - 4			Knowledge Discovery and Data Mining			
15:50		11 Alexander Prange and Daniel Sonntag	Towards a Multimodal Multisensory Cognitive Assessment Framework	15:50	2 Henrique Santos, Ana Helena Ulbrich, Vinicius Woloszyn and Renata Vieira	An initial investigation of the Charlson comorbidity index regression based on clinical notes
16:05		62 Viacheslav Antsiperov and Iliia Komoltsev	Time-scale 2D Representation of EEG Long-term Records as a Convenient Instrument for Big Data Analysis in Neurology and Psychiatry	16:05	38 Lakhmi Prasath Muniandi, Winfried Schlee, Myra Spiliopoulou, Rüdiger Pryss, Manfred Reichert, Johannes Schobel and Robin Kraft	Finding tinnitus patients with similar evolution of their Ecological Momentary Assessments
16:20	1B 364 Frödingsalen	64 Rafael S. Bressan, Daniel H. A. Alves, Lucas M. Valerio, Pedro H. Bugatti and Priscila T. M. Saito	DOCTOR: The Role of Deep Features in Content-based Mammographic Image Retrieval	16:20	23 Rohit Ravindran, Uli Niemann, Silke Klose, Isabelle Walter, Antao Ming, Peter Mertens and Myra Spiliopoulou	Transformation of Temperature Timeseries into Features that Characterize Patients with Diabetic Autonomic Nerve Disorder
16:35		106 Rohan Banerjee, Sakyajit Bhattacharya, Soma Bandyopadhyay, Arpan Pal and Kayapanda Mandana	Non-invasive Detection of Coronary Artery Disease based on Clinical Information and Cardiovascular Signals: A Two-stage Classification Approach	16:40	28 Paras Multani, Uli Niemann, Mario Cypko, Jens-Peter Kuehn, Henry Voelzke, Steffen Oeltze-Jafra and Myra Spiliopoulou	Building a Bayesian Network to Understand the Interplay of Variables in an Epidemiological Population-Based Study
16:50		14 Leonardo Iwaya, Simone Fischer-Hübner, Rose-Mharie Ähnfeldt and Leonardo Martucci	mHealth: a Privacy Threat Analysis for Public Health Surveillance Systems			
17:05		119 Panagiotis Katrakazas and Dimitrios Koutsouris	A (lack of) review on Cyber-security and Privacy Concerns in Hearing Aids			

Medical Image and Video Analysis Using			Signal and Image Processing - 1			
10:20		20 Karim Aderghal, Alexander Khvostikov, Andrei Krylov, Jenny Benois-Pineau, Karim Afdel and Gwenaëlle Catheline	Classification of Alzheimer Disease on imaging modalities with Deep CNNs using cross-modal transfer learning.	10:20	149 Bodhayan Nandi, Prosenjit Mondal and Shubhajit Roy Chowdhury	A Non-Invasive Blood Insulin and Glucose Monitoring System based on Near-Infrared Spectroscopy with Remote Data Logging
10:40		45 Jee Young Sun, Sang Won Lee, Mun Cheon Kang, Seung Wook Kim, Seung Young Kim and Sung Jea Ko	A Novel Gastric Ulcer Differentiation System Using Convolutional Neural Networks	10:40	39 Renata Tolmacheva, Yury Obukhov and Ludmila Zhavoronkova	A new approach to evaluation of electroencephalograms inter-channel phase synchronization
11:00	1B 364 Frödingsalen	68 Jongwoo Kim, Sema Candemir, George R. Thoma and Emily Chew	Region of Interest Detection in Fundus Images Using Deep Learning and Blood Vessel Information	10:55	55 Jorge Miguel Silva, António Guerra, João Figueira Silva, Eduardo Pinho and Carlos Costa	Face De-identification Service for Neuro Imaging Volumes
11:20		104 Steven Alexander Hicks, Michael Riegler, Konstantin Pogorelov, Thomas de Lange, Kristin Ranheim Randel, Kim V. Anonsen, Mattis Jeppsson, Pål Halvorsen and Sigrun Losada Eskeland	Dissecting Deep Neural Networks for Better Medical Image Classification and Classification Understanding	11:15	66 Negar Ahmadi and Mykola Pechenizky	Finding Optimal EEG Complexity Features for Classification of Epileptic and Psychogenic Nonepileptic Seizures using Imperialist Competitive Algorithm
11:40		129 Stefan Petschmann, Klaus Schöffmann, Jenny Benois-Pineau, Souad Chaabouni and Jörg Keckstein	Early and Late Fusion of Temporal Information for Classification of Surgical Actions in Laparoscopic Gynecology			

Medical Image and Video Analysis Using Deep Learning (ST2) - 2			Signal and Image Processing - 2			
13:30		132 Indranil Palit, Lin Yang, Yue Ma, Danny Chen, Michael Niemier, Jinjun Xiong and X. Sharon Hu	Biomedical Image Segmentation using Fully Convolutional Networks on TrueNorth	13:30	18 Uli Niemann, Philipp Berg, Annika Niemann, Oliver Beuing, Bernhard Preim, Myra Spiliopoulou and Sylvia Saalfeld	Rupture Status Classification of Intracranial Aneurysms Using Morphological Parameters
13:50	1B 364 Frödingsalen	163 Konstantin Pogorelov, Olga Ostroukhova, Mattis Jeppsson, Håvard Espeland, Carsten Griwodz, Thomas de Lange, Dag Johansen, Michael Riegler and Pål Halvorsen	Deep Learning and Hand-crafted Feature Based Approaches for Polyp Detection in Medical Videos	13:50	107 Tomi Leppanen, Hana Vrzakova, Roman Bednarik, Anssi Bartzak, Mikael Fraunberg and Juha E. Jääskeläinen	Augmenting Microsurgical Training: Microsurgical Instrument Detection using Convolutional Neural Networks
14:05		127 Raul Victor Medeiros Da Nóbrega, Solon Alves Peixoto, Suane Pires Pinheiro Da Silva and Pedro Pedrosa Rebouças Filho	Lung Nodule Classification via Deep Transfer Learning in CT Lung Images	14:10	12 Mateus Vieira Neto, João Wellington Mendes Souza, Pedro Pedrosa Rebouças Filho and Antonio Wendell Rodrigues	CoforDes - An invariant feature extractor for the drug pill identification
Industry (ST6)			Machine Vision and Bioinformatics			
15:00		142 Norman Spangenberg, Christoph Augenstein, Moritz Wilke and Bogdan Franczyk	Implementation of a situation aware and real-time approach for decision support in Online Surgery Scheduling	15:00	128 Roman Bednarik, Hana Vrzakova, Jani Koskinen, Piotr Bartzak and Antti-Pekka Elomaa	Blink-based estimation of suturing task workload and expertise in microsurgery
15:20	1B 364 Frödingsalen	144 Yu Lu, Yongjie Gao, Yuyang Xie and Shunan He	Computerised Interpretation Systems for Cardiocardiography for both Home and Hospital Uses	15:20	61 Marc Schickler, Rüdiger Pryss, Winfried Schlee, Thomas Probst, Johannes Schobel, Berthold Langguth and Manfred Reichert	Usability Study on Mobile Processes Enabling Remote Therapeutic Interventions
15:40		147 Diego Fiori de Carvalho, José Antonio Carmacho-Guerrero, Andrey Omar Mozo Uscamayta, Heleno Murilo Campeão Do Vale and Harley Francisco De Oliveira	SIPRAD: a radiotherapy planning system (RTPS)	15:40	126 Rajeev Motwani, Sven Kalle, Ruediger Pryss, Winfried Schlee, Thomas Probst, Berthold Langguth, Manfred Reichert and Myra Spiliopoulou	Studying the Potential of Multi-Target Classification on Patient Screening Data to Predict Dropout Cases

Doctoral consortium - 1			Tutorial				
09:00		118 Graham McCalmont, Huiru Zheng, Haiying Wang and Sally McClean	Wearable Technologies to Support the Assessment of Physical Activity Functions for Acute Stroke Rehabilitation. Development and Experimental Evaluation of a Cognitive User Interface for Multi-Touch Tables to Support Diagnostic Reasoning	09:00	1B 309 Sjöströmsalen	Melinda From, White Box Innovation, Sweden	Equality and inclusion as a driver for innovation
9:20		153 Caroline Leroy, Yvonne Kammerer, Uwe Oestermeier, Karsten Büringer, Michael Bitzer and Peter Gerjets	PhD thesis - Implementation and validation of a diagnostic model in obstructive sleep apnea: a Bayesian network approach				
9:40	1B 306 Fryxellsalen	171 Daniela Ferreira-Santos and Pedro Pereira Rodrigues					

10:00	154	João Paulo Aragão Pereira, Anarosa Alves Franco Brandão, Joyce Da Silva Bevilacqua and Maria Lúcia Correa-Giannella	A Hybrid Model to predict the glucose oscillation for patients with type 1 diabetes and suggest customized recommendations
Doctoral consortium - 2			Tutorial
10:40	156	Leila Yousefi	Predicting Disease Using a Hidden Variable in Structure Learning approaches
11:00	1B 306 Fryxellsalen	169 Giovana Jaskulski Gelatti	Representative models to predict decisions and detect anomalous behaviours without data sharing: a case of study in obstetric
11:20	168	Alexia Sampri, Nophar Geifman, Philip Couch and Niels Peek	Challenges in the aggregation of biomedical datasets and probabilistic approaches to overcome representational heterogeneity
	10:40	1B 309 Sjöströmsalen	Melinda From, White Box Innovation, Sweden
			Equality and inclusion as a driver for innovation