

ANNSIM'21 Agenda

Wednesday - July 21, 2021

MSM (11:45-13:15)

Medical simulation

Chairs: Jerzy Rozenblit & Minsik Hong

A NOVEL HYBRID AUTOMATON FRAMEWORK FOR MULTI-PHASE EPIDEMIC MODELLING

Eva Navarro and Nurdan Cabukoglu

APPLICATION OF 3D PRINTING IN THE DEVELOPMENT OF LUMBAR PUNCTURE AND EPIDURAL SIMULATORS

Lori Lioce, Kim Budisalich, Cooper Gunter, Marquis Myler, Gary Maddux, Ishella Fogle and Bernard Schroer

A RISK ESTIMATION SYSTEM TO PREDICT POSTPARTUM CIGARETTE SMOKING RELAPSE

Minsik Hong, Jerzy Rozenblit, Alicia Allen, Uma Nair and Sharon Allen

COMBINING CLINICAL AND SOCIAL DETERMINANTS TO IMPROVE DOD/VETERAN WELL-BEING: THE SERVICE MEMBER VETERAN RISK PROFILE

Richard Hartman and Mark Oxley

HOW MANY COSTLY SIMULATIONS DO WE NEED TO CREATE ACCURATE METAMODELS? A CASE STUDY ON PREDICTING HIV VIRAL LOAD IN RESPONSE TO CLINICALLY RELEVANT INTERVENTION SCENARIOS

Christopher Lutz, Philippe Giabbanelli, Andrew Fisher and Vijay Mago

AIS-CNS (11:45-13:15)

Chairs: Joon-Seok Kim & Abdolreza Abhari

MADES: A UNIFIED FRAMEWORK FOR INTEGRATING AGENT-BASED SIMULATION WITH MULTI-AGENT REINFORCEMENT LEARNING

Xiaohan Wang, Lin Zhang, Chun Zhao, Yuanjun Laili, Kunyu Xie and Han Lu

AUTOMATICALLY COMBINING CONCEPTUAL MODELS USING SEMANTIC AND STRUCTURAL INFORMATION

Alexander Freund and Philippe Giabbanelli

PREDICTION OF 5G NEW RADIO WIRELESS CHANNEL PATH GAINS AND DELAYS USING MACHINE LEARNING AND CSI FEEDBACK

Benjamin Earle, Ala'a Al-Habashna, Gabriel Wainer, Xingliang Li and Guoqiang Xue

A NOVEL ROUTING PROTOCOL FOR WIRELESS AD HOC NETWORKS BASED ON THE BEHAVIOR OF SLIME MOLD PHYSARUM POLYCEPHALUM

Hudson Devoe, Nick Gilmet and Hala ElAarag

MODELING REAL-TIME APPLICATION PROCESSOR SCHEDULING FOR FOG COMPUTING

Mani Sharifi, Abdolreza Abhari and Sharareh Taghipour

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Assistive technologies and data analysis

Chairs: Minsik Hong & Jerzy Rozenblit

ELASTIC REGISTRATION OF MRI SCANS AND RGB-D IMAGES TO IMPROVE SURGICAL PLANNING OF BREAST RECONSTRUCTION

Bernhard Schenkenfelder, Wolfgang Fenz, Stefan Thumfart, Gerhard Ebenhofer, Gernot Stuebl, David Lumenta, Gernot Reishofer and Josef Scharinger

TOWARDS APPLICATIONS OF THE "SURGICAL GPS" ON ORTHOPEDIC SPINAL PROCEDURES

Austin Tapp, Ava Maghouli and Michel Audette

EVALUATING AZURE KINECT AND STRUCTURE MARK-II 3D SURFACE SCANNERS FOR CLINICAL CHEST WALL DEFORMITY ASSESSMENT

Nahom Kidane, Yuzhong Shen and Robert Kelly

MACHINE LEARNING OF DIFFUSION WEIGHTED IMAGING FOR PREDICTION OF SEIZURE SUSCEPTIBILITY FOLLOWING TRAUMATIC BRAIN INJURY Akul Sharma, Rachael Garner, Marianna Rocca, Celina Alba, Yenlin Lee, Karina Yang, Maya Brawer-Cohen and Dominique Duncan

DECISION OF LEARNING STATUS BASED ON MODELING OF THE INFORMATION MEASUREMENT OF SOCIAL BEHAVIORAL TASKS IN RHESUS MONKEYS

Seunghyun Lee, Katalin Gothard and Jerzy Rozenblit

CPS (13:45-15:15)

Chairs: Umut Durak & Claudio Gomes

INTRODUCTION TO DIGITAL TWIN ENGINEERING

Hao Feng, Cláudio Gomes, Casper Thule, Kenneth Lausdahl, Alexandros Iosifidis and Peter Larsen

VALIDITY FRAME SUPPORTED DIGITAL TWIN DESIGN OF COMPLEX CYBER-PHYSICAL SYSTEMS

Bert Van Acker, Joost Mertens, Paul De Meulenaere and Joachim Denil

THE EFFECT AND SELECTION OF SOLUTION SEQUENCE IN CO-SIMULATION

Emin Inci, Cláudio Gomes, Casper Thule, Kenneth Lausdahl, Jan Croes, Wim Desmet and Peter Gorm Larsen

SYNTHESIZING CO-SIMULATION ALGORITHMS WITH STEP NEGOTIATION AND ALGEBRAIC LOOP HANDLING

Simon Hansen, Cláudio Gomes, Jaco van de Pol and Peter Gorm Larsen

MODELING SPECTRUM DEPENDENT CHARACTERISTICS OF TRIPLE JUNCTION SOLAR CELLS FOR SOLAR-POWERED AIRCRAFT

Daniel Ackermann, Nies Reininghaus and Andreas Bierig

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TUTORIAL C (10:00-11:30)

Chair: Joachim Denil

COMPUTATIONAL SOCIAL SIMULATION WITH E-CARGO

Haibin Zhu

TUTORIAL D (10:00-11:30)

Chair: Mohammad F. Obeid

A TUTORIAL INTRODUCTION TO COLORED PETRI NETS FRAMEWORK FOR MODEL-DRIVEN SYSTEM DESIGN AND ENGINEERING

Vijay Gehlot