The past decade has brought about a dramatic increase in the deployment of simulation-based techniques in medicine and its related healthcare fields. We use simulation scenarios extensively for training of medical personnel, students, first responders, and emergency response coordinators. Rapid advances in computer technologies, biomedical and systems engineering, drive the development of cyber physical systems that serve as simulation based training platforms. Such integrated engineering techniques are also the basis for design and development of new embedded medical devices whose reliability and cybersecurity is paramount for the well-being of patients. In addition, very complex models “digitally” plan pharmaceutical studies, assess potential treatment modalities, and carry out analytics on big health-related data sets. It is clear that we need to strengthen methodological and theoretical foundations in order to provide integrated, connected, and crosscutting solutions for modelling and simulation in healthcare. This meeting is an attempt to unify themes for such solutions and to “connect” researchers, developers, and medical practitioners.

Topics

- Modeling and simulation in medicine: fundamental research
- Training and education
- Care delivery, outcomes, and patient’s safety
- Robotics and its applications in training and “in vivo”
- Life-critical systems
- Cyber-security of medical IT systems and embedded devices
- Systems integration: “connected health”

We solicit papers to address the above and related areas with focus on both the underlying methodological and theoretical foundations and practical applications.
Submission Guidelines

We solicit original, high-quality technical papers for review, possible presentation and subsequent publication in the conference proceedings. For further instructions, please refer to the Submission Instructions in the SCS Conference Proceedings Management System web site. Contributed papers are eight pages long with double column format. They will be peer reviewed and – if accepted and presented at the conference - possibly submitted to the ACM and IEEE Digital Library. Papers must not have appeared before (or be pending) in a journal or conference with published proceedings, nor may they be under review or submitted to another forum during SpringSim’18 review process. At least one author of an accepted paper must register for the symposium and must present the paper at the symposium. For author guidelines on how to submit a paper please see http://scs.org/authorskit/.

It is also possible to submit to the Work in Progress (WIP) or Posters tracks; more details will be announced on the website (http://www.scs.org/springsim). A submission may be rejected for paper presentation, but it may be suggested for submission and presentation as a work in progress or poster. At least one author must register and present the WIP/poster at the symposium.

Symposia or Workshops Proposition

A call for Symposia or Workshops is open (see important dates), to raise visibility on topics of focused interest in a particular scientific or applications area. Submit proposals for special symposia or workshops should by e-mail to the chairs, see below.

Important Dates

- Abstract Submission: Sept 15, 2017
- Workshop Submission: Sept 29, 2017
- Full Paper Submission: Nov 23, 2017
- Notification of Acceptance: Jan 12, 2018
- Camera-ready Paper: Feb 23, 2018
Contact

Track Chair: Jerzy W. Rozenblit, jr@ece.arizona.edu
Program Chair: Johannes Sametinger, johannes.sametinger@jku.at

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