4th International Workshop on Innovative Simulation for Health Care (IWISH 2015)

Held at the 12th International Multidisciplinary Modeling and Simulation Multiconference (I3M 2015)

Bergeggi, Italy
21 – 23 September 2015

Editors:
Agostino G. Bruzzone
Marco Frascio
Francesco Longo

Yury Merkuryev
Vera Novak
Jerzy W. Rozenblit

Index

Towards a hybrid virtual/physical nuss procedure surgical simulator
Mohammad F. Obeid, Eun-sil Heo, Krzysztof J. Rechowicz, Robert E. Kelly, Frederic D. McKenzie 1

Popliteal artery aneurysm: a bioengineering study on pathogenesis
Francesca Condemi, Raffaele Serra, Stefano de Franciscis, Gionata Fragomeni 10

Sitting vs standing: a computational comparison of hemodynamics in carotid bifurcation
Maria Vittoria Caruso, Raffaele Serra, Paolo Perri, Stefano de Franciscis, Gionata Fragomeni 17

Agent-based modelling for rethinking the socioeconomic determinants of child health in sub-saharan africa
Carine Van Malderen, Hedwig Deconinck, Niko Speybroeck, Jean-Christophe Chiem 23

Rotated principal components for fuzzy segmentation szinitigraphic time series in individual dose planing
Werner Backfrieder, Gerald Zwettler 33

Simulation-based framework to compute population risk related to traffic accidents
FJ Otamendi, D Garcia-Heredia 38

Biosignal acquisition system for prosthesis control and rehabilitation monitoring
Volkhard Klinger 46

Using the OSCE method in a simulation centre to ensure equity and objectivity in assessing the communication and relational skills in a large of student nurses during a long examination session
Annamaria Bagnasco, Angela Tolotti, Giancarlo Torre, Loredana Sasso 54

The interprofessional skill lab in the simulation centre: an experience of communication between the medical-nursing team and family members
Annamaria Bagnasco, Sue-Anne Maruffi, Gianluca Catania, Giancarlo Torre, Loredana Sasso 57

An advanced centre of simulation to support caregivers providing home care to chronically ill patients, patients with rare diseases, and end of life care
Annamaria Bagnasco, Giancarlo Torre, Roberta Centanaro, Lucia Bacigalupo, Loredana Sasso 59

A simulation tool to plan daily nurse requirements
Paolo Barone, Francesco Imbimbo, Rosa Napoletano, Stefano Riemma, Debora Sarno 61

The development of a low-cost obstetric simulator to train midwifery students and test objective examinations’ skills
S. Ricci, A. Paci, S. Marcutti, P. Marchiolè, G. Torre, M. Casadio, G. Vercelli, M. Cordone 66

The foundation for multi-scale modeling of the digital patient
C. Donald Combs 73
Lean Management practices to improve performances in operating rooms
Antonio Calogero, Francesco Longo, Letizia Nicoletti, Marina Massei, Adriano Solis

New Treatment strategies for diabetes-related cognitive decline in global healthcare
Vera Novak

Author index