

The International

Workshop on Applied Modelling & Simulation

Science Club, Keqiao, International Research Park
Keqiao District, Shaoxing City, Zhejiang Province, China
November 24-25, 2024

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Agostino G. Bruzzone, Francesco Longo, Marina Massei Lin Zhang, Marco Gotelli

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WAMS 2024

Edited by:

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Keqiao District, Shaoxing City, Zhejiang Province, China, November 24-25, 2024

Hosted at Science Club, Keqiao International Research Park

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In cooperation with

JG-Lab & JAR Partner

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Welcome to WAMS2024

The 24th WAMS concentrates on Applications of Simulation and Computer Technologies and it is organized in synergy in Keqiao, the Chinese Calligraphy birth place and Textile Capital of China.

Indeed, the new 24th edition in 2024 is another great opportunity for the International Simulation Community to meet together this time in China and mix Scientist in a very critical moment, hoping to contribute in development of mutual Knowledge and International Cooperation aiming to Peace and reinforcing interactions with Chinese Simulation Community.

In facts, WAMS, the International Workshop on Applied Modeling and Simulation, is part of major event attracting Experts and Scientists from worldwide and attended by major Players.

This year WAMS is focusing, as always, on pretty innovative uses; specifically WAMS2024 includes papers on Modeling and Simulation including Industry 4.0, Ports, Logistics, Process Optimization, Strategic Engineering. We should thank the authors for their submissions and for integrating comments and suggestions from reviewers. Indeed. we thanks the International Program Committee and all other Committees for supporting the Workshop.

In facts, WAMS is a very effective Workshop that enhance networking and it results very useful to set up new Proposals & Projects. Worldwide Specialists have the opportunity to participate and interact within this important International Forum on Applied M&S. The Audience includes usually both Scientists, Users and Vendors operating in applying advanced techniques to the main application Areas and Sectors including Industry, Business, Logistics Environment & Services.

WAMS started as a series of international workshops organized in Latin America, AMS2004 (Rio de Janeiro) and AMS2006 (Buzios); these events were focusing on Application and Theory of Modeling & Simulation. In the following years, WAMS was organized in both side of Atlantic Ocean (i.e.Rio de Janeiro, Italian Riviera), while in 2011, WAMS was co-located with the International Marine Defense Show in St.Petersburg Russia organized in Joint Cooperation with SPIIRAS Russian Academy of Science. In 2012, WAMS was held in Rome in connections with the NATO CAX Forum.

The WAMS 2013 was back in Latin America and attracted scientists, technicians and experts from world leading Universities, Institutions, Agencies and Companies; indeed WAMS 2013 edition was held in Buenos Aires, Argentina and was attended by all Latin America Countries as well as by scientists from Europe, North America, Asia and Australia.

In 2014, WAMS moved in the wonderful framework of the Bosphorous (Istanbul, Turkey). Therefore WAMS returned in Italy in 2015 (Bergeggi), 2016 (Cagliari) and 2017 (Florence) back in co-location with a major NATO event. After this three events in Italy we are finally moving to Prague and working to promote M&S in this region. In 2019, WAMS was in Singapore, therefore during covid-19 the activity continued as web seminars and now we are back on having live Workshops.

We wish you a very fruitful workshop as well as the opportunity to enjoy the town and region.

Next year Workshop will be in Bergeggi (www.liophant.org/wams) and we encourage you to become active member supporting the event by proposing tracks, sessions, reviewing papers and promoting the networking.



Agostino G. Bruzzone



Francesco Longo



Marina Massei



Lin Zhang



Marco Gotelli

WAMS Track Chairs

• Supply Chain Simulation

Chairs: Marina Massei, DIME, Italy

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Modeling Innovative Processes

Chairs: Claudia Frydman, LIS, AIX-Marseille University

Andrea Reverberi, DCCI, Italy

• M&S in Operations

Chairs: Miguel Angel Piera, Universitat Autònoma de Barcelona, Spain

Miguel Mujica Mota, Hogeschool van Amsterdam, Netherlands

Simulation for Manufacturing & Industry 4.0

Chairs: Lin Zhang, Beihang University (BUAA), China

Gregory Zacharewicz, IMT, Ales, France

Modeling Smart Ports

Chairs: Agostino G. Bruzzone, Simulation Team

HaiSheng Yang, Smart Port Institute, NTU, China

• Innovative Serious Games

Chair: Antonio Giovannetti, Simulation Team

Simulation Techniques and Methodologies

Chairs: Yuri Mkur@itl Rtu, Riga TU, Latvia

Cecilia Zanni-Merk, Normandie Université, INSA, France

• Innovative Digital Solutions

Chairs: Marco Gotelli, Simulation Team

Simulation for Emergency & Crisis Management

Chairs: Terry Bossomaier, Charles Sturt University, Australia

Tomaso Vairo, ASL Port of Genoa, Italy

• Simulation Tools for Human Reliability Analysis Studies

Chair: Antonella Petrillo, University of Napoli, Partenope, Italy -

Health Care & Medical Simulation

Chairs: Marco Frascio, DISC, Genoa Univ. Medical School, Italy

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- WAMS I, M&S, TBD
- WAMS II, Strategies & Simulation, Marina Massei, DIME, Italy
- WAMS III, Advances in Simulation, TBD
- WAMS IV, Simulation in Applications, TBD
- WAMS V, Modeling Digital Solutions, TBD
- WAMS VI. New Advances in M&S. TBD
- WAMS VII, Simulation Techniques, TBD

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夫未戰而廟算勝者·得算多也; 未戰而廟算不勝者·得算少也; 多算勝·少算不勝·而況於無算乎? 吾以此觀之·勝負見矣。

Sun Tzu, the Art of War

^{(1) &}quot;the general who wins a battle makes many calculations in his temple ere the battle is fought. The general who loses a battle makes, but few calculations beforehand. Thus do many calculations lead to victory, and few calculations to defeat: how much more no calculation at all! It is by attention to this point that I can foresee who is likely to win or lose"



WAMS Proceedings will include the Full Camera Ready Paper selected by the International Program Committee through Peer Review and it is not yet ready

