PH.D. COLLOQUIUM

In 2016, ACM-SIGSIM and INFORMS-Sim will once again sponsor the Ph.D. Colloquium. The Ph.D. Colloquium addresses Ph.D. students that are within one year of their graduation (planning to graduate by Dec. 2017). Students close to graduation will be given an opportunity to showcase their work during a short presentation session in the Colloquium (apart from the regular tracks). All Colloquium students will then participate in the Colloquium Poster Session. Presenting your Ph.D. efforts to your peers and supporting society members will give you valuable feedback, support your research with additional ideas and parallel ongoing work, and introduce you to a network that can be very helpful with your career once you graduate. The Ph.D. Colloquium will be conducted on Sunday, December 11, 2016, starting with lunch. The keynote speaker, Prof. Gabriel Wainer (see below for title and summary of his talk), will join us for a discussion over lunch.

Special Track Coordinators
Andrea D'Ambrogio, University of Roma Tor Vergata
Esfandyar Mazhari, FedEx Services Corporation
Emily Lada, SAS Institute
Anastasia Anagnostou, Brunel University London

Important Dates

August 15 Submit 2-page extended abstracts using the WSC 2016 submission system (abstract are to be formatted according to the standard WSC 2016 authors kit)
September 19 Notification of acceptance to authors, including details about revisions to be carried out
October 03 Submit final version of extended abstracts
October 24 Send presentation slides for the Ph.D. Colloquium to the chair of the Committee (dambro@uniroma2.it), in PPT or PDF version
December 11 Bring your poster to the WSC 2016 Ph.D. Colloquium

Ph.D. Colloquium Participation Options

There are three options to participate in the Ph.D. Colloquium with different benefits:

1. Poster Only: Submit your work as a poster with a 2-page extended abstract, get accepted, and you will have a good reason to come to the WSC 2016. Note: Students who showcase their work as a poster in regular WSC poster sessions are not eligible to participate in Colloquium (and vice versa). Hence,
one should select to participate in either the regular poster session or the Colloquium (not both).

**Benefit 1:** Both ACM-SIGSIM and INFORMS-Sim provide a complimentary one-year membership.

2. **Poster and Presentation:** Submit a presentation in addition to your poster; get accepted, then

**Benefit 2:** ACM-SIGSIM and INFORMS-Sim will reimburse conference registration fee.

**Benefit 3:** You will be eligible to participate in the Ph.D. colloquium lunch.

3. **Poster, Presentation, and Full Paper:** Submit a full paper to a regular track in addition to the poster and presentation; get accepted, then

**Benefit 2:** ACM-SIGSIM and INFORMS-Sim will reimburse conference registration fee.

**Benefit 3:** You will be eligible to participate in the Ph.D. colloquium lunch.

**Benefit 4:** ACM-SIGSIM and INFORMS-Sim will each award a Best Ph.D. Student Paper prize among those final year students making a presentation at both the Ph.D. Colloquium and the conference. Those who have a full paper on a regular track will be eligible for these awards. ACM-SIGSIM will award a prize for the best Ph.D. Student Paper in the “Computational and Model Representation Techniques in Modeling and Simulation”. INFORMS-Sim will award a prize for the best Ph.D. Student Paper in the “Advanced Applications of Simulation and Optimization”.

Ph.D. Colloquium participants have to be present at all events (i.e., Sunday lunch, colloquium and poster sessions, WSC opening session, ACM-SIGSIM and INFORMS-Sim meetings, etc.) in order to be eligible for all benefits.

**Submission Requirements**

Students have to submit papers and posters using the regular submission system of WSC following the standard deadlines. In addition, for all students attending the Ph.D., the advisor needs to send an email to the chair of the Ph.D. Colloquium Committee (dambro@uniroma2.it) not later than August 15, 2016, that states:

1. That the Ph.D. student is within one year of graduation
2. That the Ph.D. student is the main author of the submission
3. That the Ph.D. student will participate in the Ph.D. Colloquium

The e-mail must also indicate the award for which the Ph.D. student is applying (ACM-SIGSIM or INFORMS-Sim).

**Keynote Speaker – Prof. Gabriel Wainer**

GABRIEL A. WAINER is Full Professor and Associate Chair for Graduate Studies at the Department of Systems and Computer Engineering, Carleton University (Ottawa, ON, Canada). He is the author of three books and over 320 research articles; he edited four other books, and helped organizing numerous conferences, including being one of the founders of the Symposium on Theory of Modeling and Simulation, SIMUTools and SimAUD. Prof. Wainer was Vice-President Conferences and Vice-President Publications, and is a member of the Board of Directors of the SCS. Prof. Wainer is the Special Issues Editor of SIMULATION, member of the Editorial Board of IEEE Computing in Science and Engineering, Wireless Networks (Elsevier), Journal of Defense Modeling and Simulation (SCS). He is the head of the Advanced Real-Time Simulation lab, located at Carleton University’s Centre for advanced Simulation and Visualization (V-Sim). He has been awarded Carleton University’s Research Achievement Award (2005, 2014), the First Bernard P. Zeigler DEVS Modeling and Simulation Award, the SCS Outstanding Professional Award (2011), Carleton University’s Mentorship Award (2013), the SCS Distinguished Professional Award (2013), and the SCS Distinguished Service Award (2015). He is a Fellow of SCS. He will be the Program Chair of WinterSim 2017 in Las Vegas, NV.

### Discrete-Event Modeling and Simulation Methodologies: Past, Present and Future

Modeling and Simulation methods have been used to better analyze the behavior of complex physical systems and it is now common to use simulation as a part of the scientific and technological discovery process. Formal M&S techniques appeared in order to improve the development task of very complex simulation systems. The DEVS formalism, based on a sound theoretical framework, is one of these techniques, which proved to be successful in providing means for modeling while reducing development complexity and costs. We will present a historical perspective of discrete-event M&S methodologies and will introduce DEVS origins and general ideas. We will then show the current status of DEVS M&S, and we will discuss a technological perspective to solve current M&S problems (including real-time simulation, interoperability and model-centered development techniques). We will show some examples of the current use of DEVS, including applications in different fields. We will finally show current open topics in the area, which include advanced methods for centralized, parallel or distributed simulation, the need of real-time modeling techniques, and our view in these fields.

**Ph.D. Colloquium Committee 2016**

Chair:
Andrea D'Ambrogio, University of Roma Tor Vergata, ACM SIGSIM

Members:
Esfandyar Mazhari, FedEx Services Corporation, INFORMS-Sim
Emily Lada, SAS institute, INFORMS-Sim
Anastasia Anagnostou, Brunel University London, ACM SIGSIM

Additional Information about the Colloquium

Poster preparation guidelines:
Please bring a standard A0 size poster, or sheets which can be assembled to be that size or smaller. Your poster should cover the main points of your work and be as self-explanatory as possible. However, you should participate in the evening event when the posters are presented, as peers and society members will have additional questions. Even when you gave a presentation, the poster session is always a great opportunity to talk about details, discuss relevant related research, and bond with fellow Ph.D. students.

Presentations:
If you submit a student paper for the conference you can use your presentation for the Ph.D. colloquium as well as for the track presentation. You may need to edit the slides, as we may have more time constraints. You do not have to present something special in the Ph.D. colloquium that cannot be used in the regular sessions.

Student Papers:
Student papers are part of the regular conference and fall under the submission and review guidelines as documented on this WSC website. If you have an accepted paper at the WSC 2016 and would like to participate in the Ph.D. colloquium as well, please send a short note with the details of the accepted paper to the Colloquium chair before August 15, 2016.