FINAL PROGRAM

Game-On

2 – 4 December 2015

University of Amsterdam
Amsterdam, The Netherlands

Organized by

eti
European Technology Institute

Sponsored by

eurosis
GAME-ON'2015 FINAL PROGRAMME

Overhead and LCD Projector are standard
The underlined authors are usually the presenters.
Conference Site: Rooms D1.115, F1.02, H0.08 and C0.05, University of Amsterdam, Science Park 904, 1090 GH Amsterdam, The Netherlands. For any local information contact Sander Bakkes: 📞 Tel. +31 20 525 7569, 📧 Email: S.C.J.Bakkes@uva.nl, website: http://www.uva.nl
Coffee breaks are held at the cafeteria of the University of Amsterdam
Lunches are held at Cafe RestaurantPolder

Only papers in gray boxes are eligible for the best paper award

Wednesday, December 2, 2015

08.30 - 17.00  Registration

09.00 - 09.10  ROOM D1.115 - WELCOME

Welcome Address
Sander Bakkes, University of Amsterdam, The Netherlands

Et al...

09.10 - 10.00  ROOM D1.115 – SESSION I
KEYNOTE SPEAKER

09.10-10.00  Session Chairperson:
Sander Bakkes, University of Amsterdam, The Netherlands

GAME_KEY_01
**Serious Gaming for Tactical and Strategic Decision Making**
Dr. A.H. (Anja) van der Hulst, Senior Consultant, Training Performance Innovations, TNO, The Netherlands

10.00 - 10.30  Coffee Break
Wednesday, December 2, 2015

10.30 - 12.00 ROOM D1.115 - SESSION II
GAME DESIGN

10.30-12.00 Session Chairperson:
Sander Bakkes, University of Amsterdam, The Netherlands

GAME_METH_01
Interactivity in Computer Games
Barbaros Bostan, Gökhan Şahin and Mehmet Can Üney............... 5

GAME_METH_02
Comparative Analysis on Game Design Pattern Collections
Tapani N. Liukkonen, Olli I. Heimo, Tuomas Mäkilä and Jouni Smed . 10

GAME_METH_04
Translating a Modern Film and TV Screening Room to an Integrated Game Engine Production Environment
Oliver Engels and Robert Grigg...................................................... 18

12.00 - 13.30 Lunch

13.30 - 14.30 ROOM F1.02 - SESSION III
PROCEDURAL PROGRAMMING

13.30-14.30 Session Chairperson:
Sander Bakkes, University of Amsterdam, The Netherlands

GAME_METH_05
Procedural generation of collaborative puzzle-platform game levels
Benjamin van Arkel, Daniël Karavolos and Anders Bouwer .......... 89

GAME_VIRT_01
How to use Combinatorial Optimization Problems (Traveling Salesman problem) for Procedural Landscape Generation
Alan Ehret and Peter Jamieson ............................................................... 96

14.30 - 15.00 Coffee Break
Wednesday, December 2, 2015

15.00 - 18.00 ROOM F1.02 - Session IV
TUTORIAL I

15.00-18.00 Session Chairperson:
Pieter Spronck, Tilburg University, Tilburg, The Netherlands

GAME_TUT_01
Building games with Casanova
Mohamed Abbadi, Giuseppe Maggiore and Pieter Spronck, Tilburg University, Tilburg, The Netherlands

18.00 - FREE EVENING
Thursday, December 3, 2015

08.30 - 16.30  Registration

09.00 - 10.00  ROOM F1.02 - SESSION V
VIRTUAL GAMING TRAINING ENVIRONMENTS

09.00-10.00  Session Chairperson:
Sander Bakkes, University of Amsterdam, The Netherlands

GAME_TRAIN_02
Virtual Reality Situational Language Trainer for Second Language
Design & Evaluation
Timo Korkalainen, Juho Pääkylä, Tapani N. Liukkonen, Lauri Järvenpää,
Tuomas Mäkilä, Yrjö Lappalainen and Heli Kamppari .......................43

GAME_TRAIN_04
Evaluation of a Virtual Training Environment for Aggression De-
escalation
Tibor Bosse, Charlotte Gerritsen and Jeroen de Man .......................48

10.00 - 10.30  Coffee Break

10.30 - 12.00  ROOM F1.02 - SESSION VI
GAME AI

10.30-12.00  Session Chairperson:
Sander Bakkes, University of Amsterdam, The Netherlands

GAME_AI_01
STARCRAFT II Build Item Selection with Semantic Nets
Andreas Stiegler, Keshav Dahal, Johannes Maucher
and Daniel Livingstone ...............................................................57

GAME_TOOL_04
Developing Trainable Bots for a Mobile Game of Tennis
Maxim Mozgovoy, Akane Yamada and Iskander Umarov ...................62
Thursday, December 3, 2015

GAME_AI_05
A Simple Hybrid Algorithm for Improving Team Sport AI
David King and David Edwards ...................................................65

12.00 - 13.30 Lunch

13.30 - 14.30 ROOM F1.02 - SESSION VII
ONLINE GAMING

13.30-14.30 Session Chairperson:
Sander Bakkes, University of Amsterdam, The Netherlands

GAME_VIRT_02
A Server-Side Framework for the Execution of Procedurally Generated
Quests in an MMORPG
Jonathon Doran and Ian Parberry..............................................103

GAME_OP_02
Online Skill Level Classification of Real-Time Strategy Game Players
Jason M. Blackford and Gary B. Lamont ........................................111

14.30 - 15.00 Coffee Break

15.00 - 16.30 ROOM F1.02 - SESSION VIII
TUTORIAL II

15.00-16.30 Session Chairperson:
Anton Eliëns, University of Amsterdam, Amsterdam, The Netherlands

GAME_TUT_02
Self-Promotion -- How to tell your story and present yourself or your
goal(s) with an interactive game
S.V. Bhikharie, A. Eliëns & M.R. van de Watering, Universiteit van
Amsterdam, Amsterdam, The Netherlands
Thursday, December 3, 2015

16.30 - 18.00  ROOM F1.02 – SESSION IX
               TUTORIAL III

16.30-18.00  Session Chairperson:
               Daniël Karavolos, University of Applied Sciences, Amsterdam, The Netherlands

GAME_TUT_03
Level generation based on model transformations
Daniël Karavolos, MSc. and Anders Bouwer, University of Applied Sciences Amsterdam, Amsterdam, The Netherlands

CONFERENCE DINNER

19.30-21.30.. The conference dinner will be held at the

Huize Frankendael
Middenweg 72,
1097 BS Amsterdam
Tel: 0031.20-4233930
08.30 - 10.00 Registration

09.00 - 10.00 ROOM H0.08 – SESSION X
INTELLIGENT AGENTS

09.00-10.00 Session Chairperson:
Sander Bakkes, University of Amsterdam, The Netherlands

GAME_AI_04
Proposing an Intelligent Agent for the Four-Sided Dominoes Game using The Expectimax Algorithm
Endrews Silva, Marly Costa, Nirvana Antonio and Cicero Costa Filho 73

GAME_TRAIN_07
Aggressive versus Loud Virtual Agents - Investigating the influence of sound on the stress response in the use of virtual agents
Charlotte Gerritsen and Willeke van Vught ...........................................81

10.00 - 10.30 Coffee Break

10.30 - 12.30 ROOM H0.08 – SESSION XI
INTERACTIVE EDUCATIONAL GAME DESIGN

10.30-12.30 Session Chairperson:
Sander Bakkes, University of Amsterdam, The Netherlands

GAME_METH_07
Serious Game Creation in Teaching Content
Merikki Lappi and Esa Lappi .................................................................25

GAME_TOOL_01
CMS on Game Development: An Analysis and Comparison between the Main Softwares on the Market
Maria Aparecida Pereira Junqueira, Luiz Felipe Cunha, Matheus de Freitas Oliveira Baffa and Alex Fernandes da Veiga Machado .......... 30
## Friday, December 4, 2015

**GAME_TRAIN_08**  
XIMPEL in Education – Inspiring Creativity Through Storytelling and Gameplay  
S.V. Bhikharie and A. Eliëns.................................................................33

**GAME_CONSOL_02**  
Some Reflections on Bolognese Food: A Digital Perspective, with a lot of Fun  
Marco Roccetti, Silvia Colombini and Marco Zanichelli.......................37

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<td>ROOM H0.08 – SESSION XII</td>
<td>Best Paper Award Session</td>
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<tr>
<td>12.30-10.45</td>
<td>Session Chairperson:</td>
<td>Sander Bakkes, University of Amsterdam, Amsterdam, The Netherlands Philippe Geril, EUROSI-ETI</td>
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<td>12.45</td>
<td>Lunch</td>
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<td>ROOM CO.05 - SESSION XIII</td>
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<td>13.30-14.30</td>
<td>Session Chairperson:</td>
<td>Sander Bakkes, University of Amsterdam, The Netherlands</td>
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<td>GAME_KEY_02</td>
<td>Let me Entertain you! AI that Designs Games for you</td>
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<td>Prof. Georgios N. Yannakakis, Institute of Digital Games, University of Malta</td>
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Friday, December 4, 2015

15.00 - 17.00  GAMES STUDIES SYMPOSIUM

University of Amsterdam students will present their work to the GAMEON participants

17.00 - .......  FAREWELL RECEPTION
SOCIAL PROGRAMME INFORMATION

Lunches and Coffee breaks

Coffee breaks will be served at the cafeteria of the University

Lunches will be served at:
Cafe RestaurantPolder
Science Park 205
1098 XH Amsterdam
Tel: +31.20 463 43 03
Email: info@caferestaurantpolder.nl

Conference Dinner on the 3rd of December

Huize Frankendael
Middenweg 72,
1097 BS Amsterdam
Tel: 0031.20-423930
SESSION CHAIR INFORMATION

Information for Session Chairs

Session Chairs are chosen on a voluntary basis by proposals by either authors or local committee members or are appointed by the Track Chairs, General Program Chair or General Conference Chair. They are responsible for their assigned session. They make sure their speakers are available, take care of the timing within the session, chair the discussion after each presentation and introduce each speaker based on the CV's given to them by the authors. In case they chair a session featuring extended papers, then they are required to distribute and collect the reviews of that or those papers at the beginning and end of the session. If they have time they should also indicate in their papers the number of session participants.

SEE YOU ALL NEXT YEAR AT
GAMEON 2016,
September 13-15, 2016,
Universidade Nova de Lisboa,
Lisbon, Portugal

Proposals for special
tracks/tutorials/demos can be
sent in by January 30th 2016
CONFERENCE LOCATION

Conference Venue

University of Amsterdam (UvA)
Science Park 904
P.O. Box 94323
1090 GH Amsterdam
The Netherlands
Tel: +31 (0)20 525 8626
Tel: +31 (0)20 525 9111 (main switchboard)

Room Legend

As we are switching rooms during the event based on availability here is a quick overview where we are during the conference days

<table>
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<tr>
<td>AM</td>
<td>D1.115</td>
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EUROISIS Forthcoming Conferences


FOODSIM'2016, April 4-7, 2016, Catholic University Louvain, Ghent, Belgium in cooperation with the 12th International Trends in Brewing Symposium with the conference dinner on the 6th of April and an organized visit to Belgian breweries on the 7th of April.

ECEC'2016-FUBUTEC'2016-EUROMEDIA'2016, April 13-15, 2016, Plymouth University, Plymouth, United Kingdom.

IAH'2016 (Industrialized Affordable Housing), May 9-11, 2016, The Hotel, Brussels, Belgium
EUROSIS Forthcoming Conferences

**ISC'2016**, June 6-8, 2016, **POLITEHNICA University of Bucharest**, Bucharest, Romania

**GAMEON-NA'2016-NASTEC'2016**, August 4-5, 2016, Chicago, USA


**ESM'2016** , Week of October 24-28, 2016, **SIANI, University of Las Palmas**, Las Palmas, Spain
EUROSIS was borne out of discussions with the European Community to set up a new kind of Society, which would be project driven instead of driven by pure membership and conferences.

The aim of the new Society is to set up topic related Technical Committees which link directly to European Projects in the field of computer simulation and related areas and to act as a knowledge pool for future European Networks of Excellence, like MOSAIC.

If you would like to receive more information about EUROSIS, please contact

Philippe Geril  
EUROSIS-ETI  
European Simulation Office  
Greenbridge Science Park  
Ghent University – Ostend Campus  
Wetenschapspark 1  
Plassendale 1  
B- 8400 Ostend  
Belgium  
☎ Tel: +32.59.255.330  
✉ Fax: +32.59.255.339  
✉ Email: Philippe.Geril@eurosis.org

Please send me info on EUROSIS:  
Name:..........................................................................................................................  
Address:......................................................................................................................  
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Telephone: ...................................................................................................................
Fax: .............................................................................................................................
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GAME-ON’2015 Registration Form

Please legibly print or type and fill out completely. (Check appropriate boxes where necessary)

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COMPANY OR AFFILIATION

Mailing address (tick one): [ ] HOME [ ] BUSINESS

STREET

CITY

ZIPCODE

COUNTRY

TELEPHONE

FAX

E-MAIL

DATE

SIGNATURE

1. [ ] EUROSIS member € 560 Member Number: ________________________________ €__________

2. [ ] Members of Sponsor or Affiliate Society € 560 €__________

3. [ ] Non-Member Participant € 605 €__________

4. [ ] Students, who are not authors but who wish to attend the conference, or ONE DAY PARTICIPANTS pay: € 435 €__________

(Above registration fees include, one copy of the PROCEEDINGS, all midday meals, cocktail, refreshments, coffees and social program,) One Day Participants and Non-Author Students cannot participate in the conference dinner.

5. [ ] Conference Dinner Ticket for Companion € 70 [] Lunch Ticket for Companion € 25/day €__________

6. [ ] Extra Conference Proceedings € 40 Cash and Carry €__________

VAT Number if applicable: ________________________________

TOTAL AMOUNT DUE

€__________

€__________

ADD BANK CHARGE of € 15 in case you pay by BANK or CHEQUE.

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€__________

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[ ] 2) Or pay by CHEQUE and send it to Philippe Geril, EUROSIS-ETI, European Simulation Office, Greenbridge Science Park, Ghent University – Ostend Campus, Wetenschapspark 1, Plassendale 1, B-8400 Ostend, Belgium.

[ ] 3) Or pay by CREDIT CARD and fill in the information below:

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