

FINAL PROGRAM



18 – 20 September 2018



**Abertay
University**

**Dundee, Scotland
United Kingdom
Organized and Sponsored by**



PROGRAMME AT A GLANCE

September 18

08.30-15.00 Registration
 09.00-09.15 Welcome
 09.15-10.00 Keynote Alan Hinchcliffe
 10.00-10.30 Coffee Break
 10.30-12.00 Session: Procedural Game Generation and Mechanics
 12.00-13.30 Lunch
 13.30-14.30 Session: Game AI
 14.30-15.00 Coffee Break
 15.00-16.00 Session: Playing Styles
 16.00-17.00 Invited Talk: Joseph Delappe
 19.00 Social Programme – Dinner at the DCA (Dundee Contemporary Arts) centre-(not included in the conference fee, on a voluntary basis only).

September 19

09.00-15.00 Registration
 09.00-10.00 Keynote Mike Cook
 10.00-10.30 Coffee Break
 10.30-12.30 Session: Game Development Methodology and Mobile Gaming
 12.30-13.30 Lunch
 13.30-14.30 Session: Serious Gaming I
 14.30-15.00 Coffee Break
 15.00-16.00 Session: Serious Gaming II
 16.30-18.00 VR Workshop
 20.00-23.00 Conference Visit and Dinner

September 20

09.00-09.30 Registration
 09.00-10.00 Session: Augmented Play
 10.00-10.30 Coffee Break
 10.30-12.00 Online Gaming
 12.00-12.15 Closing Session

GAME-ON'2018 FINAL PROGRAMME

Overhead and LCD Projector are standard

The underlined authors are usually the presenters.

Conference Site: **the Hannah MacLure Centre on the 3rd floor of the Student Centre Building at [Abertay University](http://www.abertay.ac.uk), Bell Street, DD1 1HG Dundee, Scotland, United Kingdom**

For any local information contact David King: 📞 Tel. +44 01382 308297, ✉ Email:

d.king@abertay.ac.uk,

Coffee breaks at the **Hannah MacLure centre (3rd floor Student Centre)** and **lunches** at the **Bar One, 2nd floor of the Student Centre**

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

Tuesday, September 18, 2018

08.30 - 15.00 **Registration**

09.00 - 09.15 **Hannah MacLure centre- WELCOME**

Welcome Address

University Principal Prof. Nigel Seaton

09.15 - 10.00 **Hannah MacLure centre - SESSION I
KEYNOTE SPEAKER**

09.15-10.00

Session Chairperson:

David King, Abertay University, Dundee, United Kingdom



GAME_KEY_03

[Bringing Expressive Virtual Characters to Life](#)

Allan Hinchcliffe, Lead Engineer, Character Engine
London, United Kingdom

Tuesday, September 18, 2018

10.00 - 10.30 Coffee Break in the Hannah MacLure centre

10.30 - 12.00 Hannah MacLure centre - SESSION II PROCEDURAL GAME GENERATION AND MECHANICS

10.30-12.00 Session Chairperson:
David King, Abertay University, Dundee, United Kingdom

GAME_DEV_METH_06
Computational Creativity and Game Design: Towards Procedural Game Generation
Jorge Ruiz Quiñones and Antonio J. Fernández-Leiva 55

GAME_DEV_METH_07
Fast Configurable Tile-based Dungeon Level Generator
Ondřej Nepožitek and Jakub Gemrot..... 61

GAME_ANIM_01
Creating Gameplay Mechanics with deformable Characters
Grant Clarke 66

12.00 - 13.30 Lunch in Bar One, 2nd floor of the Student Centre

13.30 - 14.30 Hannah MacLure centre - SESSION III GAME AI

13.30-14.30 Session Chairperson:
Grant Clarke, Abertay University, Dundee, United Kingdom

GAME_AI_02
Monte Carlo Tree Search for Quoridor
Victor Massagué Respall, Joseph Alexander Brown
and Hamna Aslam..... 5

GAME_AI_03
Monte Carlo Tree Search for Love Letter
Tamirlan Omarov, Hamna Aslam, Joseph Alexander Brown
and Elizabeth Reading..... 10

Tuesday, September 18, 2018

14.30 - 15.00 **Coffee Break in the Hannah MacLure centre**

15.00 - 16.00 **Hannah MacLure centre - SESSION IV
PLAYING STYLES**

15.00-16.00

Session Chairperson:

Grant Clarke, Abertay University, Dundee, United Kingdom

GAME_OPP_01 – VIDEO PRESENTATIONS

Dynamically Extracting Play Style in Educational Games

Reza Khoshkangini, Annapaola Marconi, Santiago Ontañón

and Jichen Zhu**37**

GAME_OPP_02

Playing Styles in Starcraft

Yaser Norouzzadeh Ravari, Sander Bakkes and Pieter Spronck.....**47**

16.00 - 17.00 **Hannah MacLure centre - SESSION V
INVITED SPEAKER**

16.00-17.00

Session Chairperson:

Grant Clarke, Abertay University, Dundee, United Kingdom



GAME_INV_01

[Head Shot! Playing Politics in Computer Games](#)

Joseph DeLappe, Professor of Games and Tactical Media Division of Games and Art , Abertay University, Dundee, Scotland, United Kingdom

Tuesday, September 18, 2018

**17.00 - 18.00 Kydd Building
POST GRAD STUDENT EXHIBITION**

17.00-18.00



**At the Centre for Excellence in Games Education
2nd floor of the Kydd Building
room 2523**

**19.00 - FREE EVENING OR JOIN US FOR AN INFORMAL DINNER ON A
VOLUNTARY BASIS (NOT INCLUDED IN THE CONFERENCE FEE) AT
THE**



**DCA (Dundee Contemporary Arts) centre
152 Nethergate, DD1 4DY Dundee
☎ Tel: +44. (0)1382 432 444
☎ Tel Jute Café Bar: +44.(0)1382 909 246**

Wednesday, September 19, 2018

09.00 - 15.00 **Registration**

09.00 - 10.00 **Hannah MacLure centre - SESSION VI
KEYNOTE**

09.00-10.00

Session Chairperson:

David King, Abertay University, Dundee, United Kingdom



GAME_KEY_01

[Watch This Possibility Space: The Future of Creative AI in Games](#)

Mike Cook, Senior Research Fellow University of Falmouth, Falmouth, United Kingdom and researcher/developer at [Games by Angelina](#)

10.00 - 10.30 **Coffee Break in the Hannah MacLure centre**

10.30 - 12.30 **Hannah MacLure centre - SESSION VII
GAME DEVELOPMENT METHODOLOGY AND MOBILE GAMING**

10.30-12.30

Session Chairperson:

Chris Acornley, Abertay University, Dundee, United Kingdom

GAME_AFFECT_01

Affective Games: A Multimodal Classification System

[Salma Hamdy](#) and [David King](#) **19**

GAME_DEV_METH_02

Player Age and Affordance Theory in Game Design

[Hamna Aslam](#), [Joseph Alexander Brown](#) and [Elizabeth Reading](#) **27**

Wednesday, September 19, 2018

GAME_DEV_METH_04

Role and Experiences of Tutorial in Location Based Game

Kaïsa Könnöla, Tuomas Ranti, Tapani N. Joelsson

and Tuomas Mäkilä.....91

GAME_DEV_METH_01

Quality Assurance in a Mobile Game Project: A Case Study

Maxim Mozgovoy96

12.30 - 13.30 Lunch in Bar One, 2nd floor of the Student Centre

13.30 - 14.30 Hannah MacLure centre - SESSION VIII
SERIOUS GAMING I

13.30-14.30

Session Chairperson:

Karen Meyer, Abertay University, Dundee, United Kingdom

GAME_SER_02

Motivational Game Design and Pro-Environmental Elements in Sustainability Applications

Kaïsa Könnöla, Tuomas Mäkilä, Kaapo Seppälä

and Teijo Lehtonen 129

GAME_SER_03

Gamifying Learning of Maritime Standard Operational Procedures

Olli I. Heimo, Tapani Joelsson, Sari Nyroos and Tuomas Mäkilä... 133

14.30 - 15.00 Coffee Break in the Hannah MacLure centre

15.00 - 16.00 Hannah MacLure centre - SESSION IX
SERIOUS GAMING II

15.00-16.00

Session Chairperson:

Karen Meyer, Abertay University, Dundee, United Kingdom

Wednesday, September 19, 2018

GAME_DEV_METH_03

Designing Gamification for Constructive Competition

Mark Featherstone..... 138

GAME_SER_05

Developing a Gamified Platform to Involve Unemployed Youth in Job-Seeking Activities

Juho Mattila, Eeva Leinonen, Ilkka Hietaniemi, Aryan Firouzian
and Petri Pulli 144

16.00 - 18.00 **LOCATION TBC - SESSION X**
VR WORKSHOP

16.00-18.00

Session Chairperson:

Grant Clarke, Abertay University, Dundee, United Kingdom

The idea behind the VR workshop is to have an open discussion around the locomotion problem in VR games. The workshop will be broken into 2 stages:

Stage 1: Split the delegates into groups and experiment with a varied collection of VR games that take different solutions to allow the player to move around a virtual space. The idea is to have a number of VR stations where everyone can sample more than one title. The titles themselves will be a collection of demos built by Abertay staff and students along with some external titles.

Stage 2: Each group would then have a round table discussion and present their findings to the other teams. The idea here is to collect common points raised by each group that may form a useful set of guidelines when tackling this problem.

Wednesday, September 19, 2018

CONFERENCE DINNER

19.00-23.00



The Conference dinner will be held on Wednesday the 19th of September at

[Discovery Point](#)

Discovery Quay

DD1 4XA Dundee

Scotland, United Kingdom



Tel: +44 (0)1382 309060



Email: admin@dundeeheritage.co.uk

Thursday, September 20, 2018

09.00 - 09.30 **Registration**

09.00 - 10.00 **Hannah MacLure centre – SESSION XI
AUGMENTED PLAY**

09.00-10.00

Session Chairperson:

David King, Abertay University, Dundee, United Kingdom

GAME_AUG_01

Beyond Pokemon Go Advances in Augmented Reality for Games

Ken Newman, Tina Gates and Bilal Ahmed **75**

GAME_AUG_02

Immersion Issues in Haptic Experiences

Helena Barbas **81**

10.00 - 10.30 **Coffee Break in the Hannah MacLure centre**

10.30 - 12.00 **Hannah MacLure centre – SESSION XII
ONLINE GAMING**

10.30-12.00

Session Chairperson:

David King, Abertay University, Dundee, United Kingdom

GAME_ONL_01

Trade-offs and Challenges of Cloud Gaming in Practice

Robert J. Grigg and René Hexel **101**

GAME_ONL_02

An Audience Participation Angry Birds Platform for Social Well-Being

Yuxuan Jiang, Pujana Paliyawan, Ruck Thawonmas

and Tomohiro Harada **116**

GAME_ONL_03

Citizen's Interactions in "Smart Game Playing Environments"

Liliana Vale Costa, Ana Isabel Veloso and Óscar Mealha **121**

Thursday, September 20, 2018

12.00 - 12.15 **Hannah MacLure centre – SESSION XIII**
CLOSING SESSION AND BEST PAPER AWARD

12.00-12.15 **Session Chairperson:**
David King, Abertay University, Dundee, United Kingdom
Philippe Geril, EUROSIS-ETI, Ostend, Belgium

SOCIAL PROGRAMME INFORMATION


Lunches and Coffee breaks



Coffee breaks will be served in the **Hannah MacLure centre**, which is on the 3rd floor of the **Student Centre Building** and lunches will be served in **Bar One**, on the 2nd floor of the **Student Centre Building**.

[Abertay University](https://www.abertay.ac.uk)

Bell Street
 DD1 1HG Dundee
 Scotland, United Kingdom

 Tel: +44 (0)1382 308 000


Conference Dinner on the 19th of September



The Conference dinner will be held on Wednesday the 19th of September at

[Discovery Point](https://www.discoverypoint.co.uk)

Discovery Quay
 DD1 4XA Dundee
 Scotland, United Kingdom

 Tel: +44 (0)1382 309060

 Email: admin@dundeeheritage.co.uk

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 2019, September 18-
20, 2019, [NHTV Breda](https://www.nhtv.nl)
[University of Applied Sciences](https://www.nhtv.nl),
Breda, The Netherlands**

**Proposals for special
tracks/tutorials/demos can be
sent in by January 30th 2019**

CONFERENCE LOCATION

Conference Venue



Abertay University

Hannah MacLure centre, 3rd floor of the Student Centre Building (directly opposite the university main entrance).

Bell Street

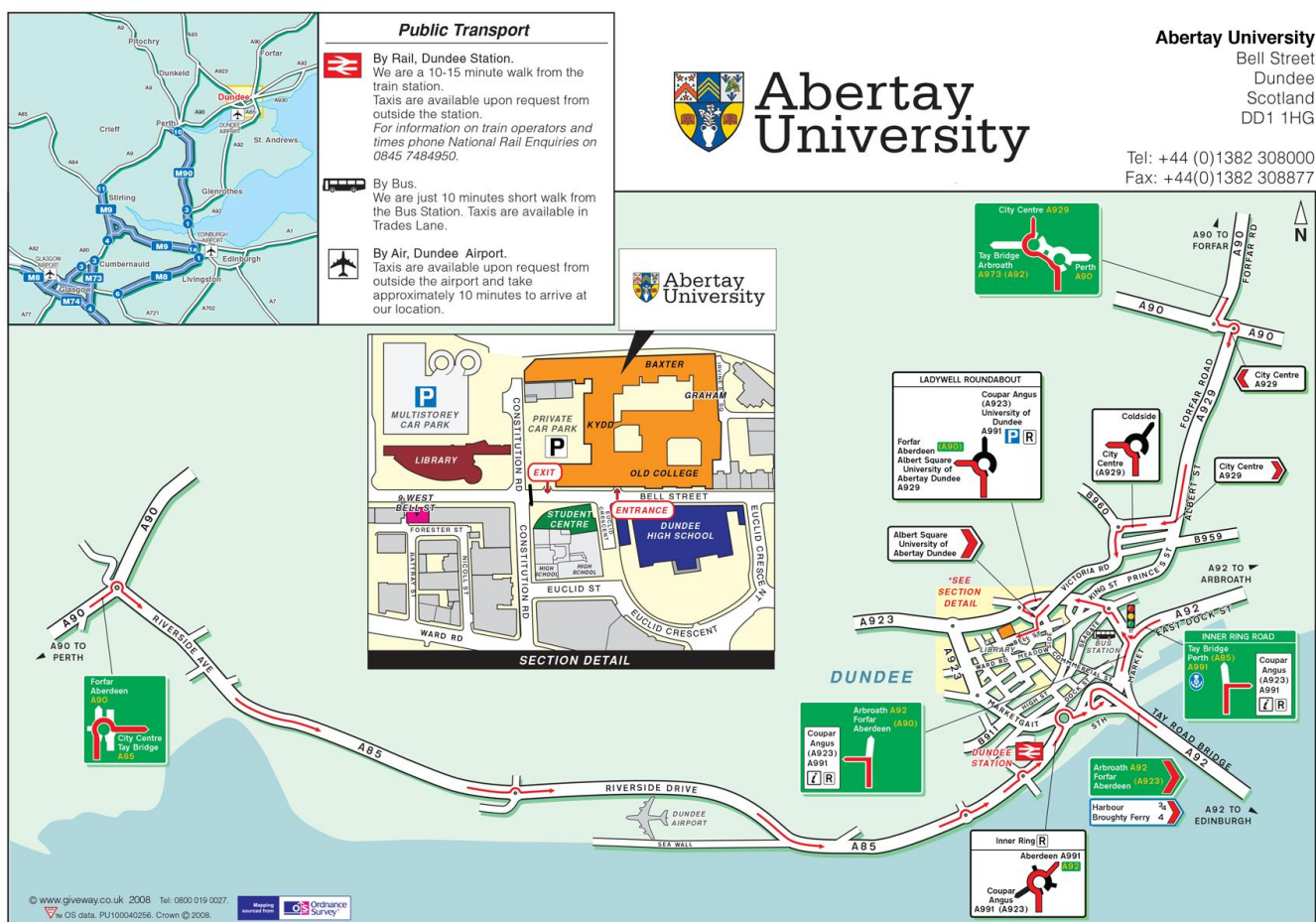
DD1 1HG Dundee

Scotland, United Kingdom

 Tel. +44 01382 308297

Email: d.king@abertay.ac.uk

Dundee City/University Campus Map



CONFERENCE LOCATION

How to Reach Dundee

By Plane

Dundee Airport, located in the heart of Scotland, is the most convenient fly-in destination for some 1000 square miles of central Scotland and operates 2 flights on week days to and from London Stansted ([Loganair](#)).

Taxis are available upon request from outside [Dundee Airport](#) and should take approximately ten minutes to arrive at the University.

Alternatively fly in through [Edinburgh Airport](#) and take a train from [Edinburgh Waverley station](#) to Dundee.

By Rail (Dundee Station)

We are just ten minutes' short walk from the train station. Taxis are available outside its main entrance. Journey information is available from [National Rail Enquiries](#). Tickets can be bought directly from [East Coast](#) and [Virgin Rail](#).

By Coach and Bus: National coach services

We are just ten minutes' short walk from the bus station. Taxis are available in Trades Lane. ([National Express Coaches](#), [Megabus](#) and [Citylink](#)).

By Car

Driving directions can also be generated from [Google Maps](#).

There are a number of [public car parks](#) available around Abertay University.

Useful Links

- [Dundee Weather Forecast](#)
- [Visit Dundee](#)
- [Dundee Travel](#)
- [Visit Scotland- Dundee](#)

EUROSIS Forthcoming Conferences



[ESM'2018](#)

October 24-26, 2018

Ghent University, Ghent, Belgium



SCIFI-IT'2019

April 1-3, 2019

[De Krook](#), Ghent, Belgium



ISC'2019,

Week of June 1st, 2019

[ISEL](#)

Lisbon, Portugal,

NASTEC'2019, GAMEON-NA'2019, Canada

GAMEON'2019, September 18-20, NHTV Breda University of Applied Sciences, Breda, The Netherlands

ESM'2019, October 2019, Palma de Mallorca, Spain (TBC)

FOODSIM'2020, April 6-9, 2020, [University of Leuven Research Centre](#), Ghent, Belgium

eurosis

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
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Ghent University – Ostend Campus
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Plassendale 1
B- 8400 Ostend
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 **Tel: +32.59.255.330**
 **Fax: +32.59.255.339**
 **Email: Philippe.Geril@eurosis.org**

Please send me info on EUROSIS:

Name:.....

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Ad-
dress:.....

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Telephone:.....

Fax:.....

Email:.....

GAME-ON'2018 Registration Form

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

FIRST NAME	LAST NAME	M.I.
COMPANY OR AFFILIATION		
Mailing address (tick one): <input type="checkbox"/> HOME <input type="checkbox"/> BUSINESS		
STREET		
CITY		
ZIPCODE	COUNTRY	
TELEPHONE	FAX	
E-MAIL		
DATE	SIGNATURE	
1. <input type="checkbox"/> EUROISIS member € 565 Member Number: _____		€ _____
2. <input type="checkbox"/> Members of Sponsor or Affiliate Society € 565		€ _____
3. <input type="checkbox"/> Non-Member Participant € 610		€ _____
4. <input type="checkbox"/> Students, <u>who are not authors</u> but who wish to attend the conference, or ONE DAY PARTICIPANTS pay: € 450		€ _____
(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. <input type="checkbox"/> Conference Dinner Ticket for Companion € 90 <input type="checkbox"/> Lunch Ticket for Companion € 25/day		€ _____
6. <input type="checkbox"/> Extra Conference Proceedings € 40 Cash and Carry		€ _____
VAT Number if applicable: _____		
TOTAL AMOUNT DUE		€ _____
		€ _____
TOTAL AMOUNT REMITTED		€ _____

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