

Tue 20th August 2019 (Industry Day)

All sessions, unless otherwise specified, are held at the Great Hall

Time	Start Time	What	Duration (minutes)
08:00:00	08:00:00	Arrival and Registration	00:40:00
08:10:00			
08:20:00			
08:30:00			
08:40:00	08:40:00	Opening	00:20:00
08:50:00			
09:00:00	09:00:00	Keynote 1 David Silver (Google Deepmind)	00:50:00
09:10:00			
09:20:00			
09:30:00			
09:40:00			
09:50:00	09:50:00	Sponsor: Creative Assembly	00:10:00
10:00:00	10:00:00	How developers analyse AI behaviour in Total War games Csaba Toth and Duygu Çakmak (Creative Assembly)	00:25:00
10:10:00			
10:20:00			
10:25:00	10:25:00	20 min Break	00:20:00
10:35:00			
10:45:00	10:45:00	What gap? Bringing Game AI research to industry challenges Christoffer Holmgård (modl.ai)	00:25:00
10:50:00			
11:00:00			
11:10:00			
11:10:00	11:10:00	Sponsor: Unity	00:10:00
11:20:00	11:20:00	Keynote 2 Theresa Duringer (Temple Gate Games)	00:50:00
11:30:00			
11:40:00			
11:50:00			
12:00:00			
12:10:00	12:10:00	Lunch Break (People's Palace Foyer)	01:00:00
12:20:00			
12:30:00			
12:40:00			
12:50:00			
13:00:00			
13:10:00	13:10:00	Keynote 3 Katja Hofmann (Microsoft Research)	01:00:00
13:20:00			
13:30:00			
13:40:00			
13:50:00			
14:00:00	14:00:00	Sponsor: Microsoft	00:10:00
14:10:00	14:10:00	Making one design a thousand: making For Honor's Arcade Mode Ben Andrews (Studio Gobo)	00:25:00
14:20:00			
14:30:00			
14:35:00	14:35:00	Coffee and Demos (Location: Graduate Centre GC201)	00:35:00
14:45:00			
14:55:00			
15:05:00			
15:10:00	15:10:00	Transforming fitness with VR, Exergaming, and Zombies, Run! Adrian Hon and Abigail Fisher (Six to Start)	00:25:00
15:20:00			
15:30:00			
15:35:00	15:35:00	Sponsor: Wargaming	00:10:00
15:45:00	15:45:00	Personalised Content in Mobile Games Marko Knezevic (Nordeus)	00:25:00
15:50:00			
16:00:00			
16:10:00	16:10:00	25 min Break	00:25:00
16:20:00			
16:35:00	16:35:00	Regression Tests for Character Animation Systems Hubert Mohr-Daurat (Creative Assembly)	00:25:00
16:40:00			
16:50:00			
17:00:00	17:00:00	Keynote 4 Jon Paul Schelter (Ubisoft Toronto)	00:50:00
17:10:00			
17:20:00			
17:30:00			
17:40:00			
17:50:00	17:50:00	Closing Remarks	00:10:00

Tue 20th August 2019 (Industry Day)

Demo and Coffee Session (2:35pm - 3:05pm)

<p>When: Tuesday 20th; 2:35pm - 3:05pm Where: GC201</p>	<p>***** Research Track *****</p> <p>Pass in Human Style: Learning Soccer Game Patterns from Spatiotemporal Data Victor Khaustov and Maxim Mozgovoy</p> <p>RDF* Graph Database as Interlingua for the TextWorld Challenge Guntis Barzdins and Didzis Gosko</p> <p>Visualization of Deep Reinforcement Learning using Grad-CAM: How AI Plays Atari Games? Ho-Taek Joo and Kyung-Joong Kim</p> <p>An Overview of the Ludii General Game System Matthew Stephenson, Eric Piette, Dennis J. N. J. Soemers and Cameron Browne</p> <p>Remixing headlines for context-appropriate flavor text Judith van Stegeren and Mariët Theune</p> <p>Interactive Machine Learning for More Expressive Game Interactions Carlos Gonzalez Diaz, Phoenix Perry and Rebecca Fiebrink</p> <p>neomento - towards building a universal solution for virtual reality exposure psychotherapy Adam Streck, Philipp Stepnicka, Jens Klaubert and Thomas Wolbers</p> <p>***** Industry Track *****</p> <p>Beyond a Steel Sky: the Math behind the Art Emanuele Salvucci</p> <p>Spreading Machine Learning familiarity through games Anthony Diggle</p>
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Wed 21st August 2019

8:30am - 9:00am

When: Wednesday 21st; 8:30am - 9:00am Where: People's Palace Lobby	Coffee
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9:00am - 10:30am

When: Wednesday 21st; 9:00am - 10:30am Where: Skeel Lecture Theatre	1-W1-AI-1-90 - AI for Playing Games Chair: Ruck Thawonmas	Paper type	Track
9:00am - 9:20am	Robust Continuous Build-Order Optimization in StarCraft David Churchill, Michael Buro and Richard Kelly	Regular paper	AI for Playing Games
9:20am - 9:40am	Beating Uncertainty in Racing Bot Evolution through Enhanced Exploration and Pole Position Selection Salem Mohammed, Antonio Mora and Jj Merelo	Regular paper	AI for Playing Games
9:40am - 10:00am	Policy Based Inference in Trick-Taking Card Games Douglas Rebstock, Chris Solinas, Michael Buro and Nathan R. Sturtevant	Regular paper	AI for Playing Games
10:00am - 10:15am	A Self-Play Policy Optimization Approach to Battling Dan Huang and Scott Lee	Short paper	AI for Playing Games
10:15am - 10:30am	Win or Learn Fast Proximal Policy Optimisation Dino Stephen Ratcliffe, Katja Hofmann and Sam Devlin	Short paper	AI for Playing Games

When: Wednesday 21st; 9:00am - 10:30am Where: People's Palace 1 (PP1)	1-W1-Music and Audio-90 - Music and Audio Chair: Karen Collins	Paper type	Track
9:00am - 9:20am	G-SpAR: GPU-Based Voxel Graph Pathfinding for Spatial Audio Rendering in Games and VR Mirza Beig, Bill Kapralos, Karen Collins and Pejman Mirza-Babaei	Regular paper	Sound and Music
9:20am - 9:40am	Music Matters: An empirical study on the effects of adaptive music on experienced and perceived player affect Cale Plut and Philippe Pasquier	Regular paper	Sound and Music
9:40am - 9:55am	"Did You Hear That?" Learning to Play Video Games from Audio Cues Raluca Gaina and Matthew Stephenson	Short paper	Benchmarks and Competitions
9:55am - 10:10am	Influencing the Behavioral Responses of Players in an Interactive Narrative Game through Music and Arousal Congruency Logan Parmeter and Matthew Fendt	Short paper	Narrative and Interactive Entertainment
10:10am - 10:25am	A novel music-based game with motion capture to support cognitive and motor function in the elderly Kat Agres, Simon Lui and Dorien Herremans	Short paper	Serious Games Technology

When: Wednesday 21st; 9:00am - 10:30am Where: People's Palace 2 (PP2)	1-W1-Player XP-90 - Player Experience Chair: Günter Wallner	Paper type	Track
9:00am - 9:20am	Your Gameplay Says it All: Modelling Motivation in Tom Clancy's The Division David Melhart, Ahmad Azadvar, Alessandro Canossa, Antonios Liapis and Georgios N. Yannakakis	Regular paper	Analytics and Player Modelling
9:20am - 9:40am	Effects of advertisements and questionnaire interruptions on the player experience Carlos Pereira Santos, Niels van Gaans, Vassilis-Javed Khan and Panos Markopoulos	Regular paper	Game Interfaces and User Interaction
9:40am - 10:00am	Comparing Co-Located and Remote Gameplay to Explore the Role of Physical Co-Presence in Multiplayer Room-Scale VR Felix Born, Philipp Sykownik and Maic Masuch	Regular paper	Game Interfaces and User Interaction

10:00am - 10:15am	Can You Hear the Player Experience? A Pipeline for Automated Sentiment Analysis of Player Speech Philipp Sykownik, Felix Born and Maic Masuch	Short paper	Analytics and Player Modelling
10:15am - 10:30am	Turning the classroom into an escape room with decoder hardware to increase student engagement Robert Ross and Carolyn Bell	Short paper	Game Interfaces and User Interaction

10:30am - 11:00am

When: Wednesday 21st; 10:30am - 11:00am Where: People's Palace Lobby	Coffee
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11:00am - 12:00pm

When: Wednesday 21st; 11:00am - 12:00pm Where: Skeel Lecture Theatre	Keynote 1 (Richard Bartle)
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12:00pm - 1:00pm

When: Wednesday 21st; 12:00pm - 1:00pm Where: Skeel Lecture Theatre	2-W2-APM-1-60 - Analytics and Player Modelling Chair: Mike Preuss	Paper type	Track
12:00pm - 12:20pm	Combining Sequential and Aggregated Data for Churn Prediction in Casual Freemium Games Jeppe Theiss Kristensen and Paolo Burelli	Regular paper	Analytics and Player Modelling
12:20pm - 12:40pm	Predicting the monetization percentage with survival analysis in free-to-play games Riikka Numminen, Markus Viljanen and Tapio Pahikkala	Regular paper	Analytics and Player Modelling

12:40pm - 1:00pm	Unconventional Exchange: Methods for Statistical Analysis of Virtual Goods Oliver Scholten, James Walker, Kenneth Hawick and Peter Cowling	Regular paper	Analytics and Player Modelling
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When: Wednesday 21st; 12:00pm - 1:00pm Where: People's Palace 1 (PP1)	2-W2-Game Design 1-60 - Game Design Chair: Alena Denisova	Paper type	Track
12:00pm - 12:20pm	The Newborn World: Guiding Creativity in a Competitive Storytelling Game Antonios Liapis	Regular paper	Game Design
12:20pm - 12:40pm	Understanding the Effects of Gamification and Juiciness on Players Kieran Hicks, Kathrin Maria Gerling, Graham Richardson, Tom Pike, Oliver Burman and Patrick Dickinson	Regular paper	Game Design
12:40pm - 1:00pm	Not So Different Games: An exploration of five years of student game designers Zoe Wood and Enrica Costello	Regular paper	Game Design

When: Wednesday 21st; 12:00pm - 1:00pm Where: People's Palace 2 (PP2)	2-W2-SFP-1-90 - Statistical Forward Planning Chair: Alexander Dockhom	Paper type	Track
12:00pm - 12:20pm	A Local Approach to Forward Model Learning: Results on the Game of Life Game Simon M. Lucas, Alexander Dockhom, Vanessa Volz, Chris Bamford, Raluca D. Gaina, Ivan Bravi, Diego Perez-Liebana, Sanaz Mostaghim, Rudolf Kruse	Regular paper	AI for Playing Games
12:20pm - 12:40pm	Enhancing Monte Carlo Tree Search for Playing Hearthstone Jean Seong Bjorn Choe and Jong-Kook Kim	Competition paper	AI for Playing Games
12:40pm - 1:00pm	Monte Carlo Strategies for Exploiting Fairness in N-player Ultimatum Games Garrison Greenwood and Daniel Ashlock	Regular paper	Game Theory and Multi-agent Systems

1:00pm - 2:00pm

When: Wednesday 21st; 1:00pm - 2:00pm Where: People's Palace Lobby	Lunch	IEEE CIS Reception Where: GC201 (Reserved)
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2:00pm - 3:30pm

When: Wednesday 21st; 2:00pm - 3:30pm Where: Skeel Lecture Theatre	Competition Session Chair: Mike Preuss
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3:30pm - 4:00pm

When: Wednesday 21st; 3:30pm - 4:00pm Where: People's Palace Lobby	Coffee
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4:00pm - 6:00pm

When: Wednesday 21st; 4:00pm - 6:00pm Where: The Octagon	Poster Session
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Wed 21th August 2019

Poster Session (4pm - 6pm); The Octagon

Track	Title	Authors
AI for Playing Games	GBDT, LR & Deep Learning for Turn-based fighting game AI	Like Zhang, Hui Pan, Qi Fan, Changqing Ai and Yanqing Jing
	Ordinal Bucketing for Game Trees using Dynamic Quantile Approximation	Tobias Joppen, Tilman Strübig and Johannes Fümkrantz
	General Board Game Playing for Education and Research in Generic AI Game Learning	Wolfgang Konen
	Action Spaces in Deep Reinforcement Learning to Mimic Human Input Devices	Marco Pleines, Frank Zimmer and Vincent-Pierre Berges
	Combining “experience replay” with “exploration by random network distillation”	Francesco Sovrano
	Neuroevolution Strategies for Word Embedding Adaptation in Text Adventure Games	Vivan Raaj Rajalingam and Spyridon Samothrakis
	Evaluating the Complexity of Players Strategies using MCTS Iterations	Pier Luca Lanzi
	Application of Retrograde Analysis on Fighting Games	Kristen Yu and Nathan Sturtevant
	Learning Policies from Human Data for Skat	Douglas Rebstock, Christopher Solinas and Michael Buro
	Automated Playtesting of Matching Tile Games	Luvneesh Mugrai, Fernando De Mesentier Silva and Julian Togelius
	Teaching on a Budget in Multi-agent Deep Reinforcement Learning	Ercüment İlhan, Diego Perez-Liebana and Jeremy Gow
	Rogue-Gym: A New Challenge for Generalization in Reinforcement Learning	Yuji Kanagawa and Tomoyuki Kaneko
	Evolving Game State Evaluation Functions for a Hybrid Planning Approach	Xenija Neufeld, Sanaz Mostaghim and Diego Perez-Liebana
	Deep Reinforcement Learning in Match-3 Game	Ildar Kamaldinov and Ilya Makarov
	A Hybrid Reinforcement Learning Approach for MARLÖ Challenge	Linjie Xu and Yihong Chen
	Modified PPO-RND Method for Solving Sparse Reward Problem in ViZDoom	Jia-Chi Chen and Tao-Hsing Chang
Optimal Use of Experience in First Person Shooter Games	Matthew Aitchison	
Multi-Agent non-Overlapping Pathfinding with Monte-Carlo Tree Search	Mohammad Sina Kiarostami, Mohammad Reza Daneshvaramoli, Saleh Khalaj Monfared, Kamyar Givaki, Dara Rahmati and Saeid Gorgin	
When Are We Done with Games?	Niels Justesen, Michael S. Debus and Sebastian Risi	

Track	Title	Authors
Analytics and Player Modelling	Identifying Cognitive Load in a Computer Game: An exploratory Study	Allan Fowler, Alessandro Canossa and Keith Nesbitt
	Mining Player In-game Time Spending Regularity for Churn Prediction in Free Online Games	Wanshan Yang, Gemeng Yang, Ting Huang, Junlin Zeng, Jintian Cai, Lijun Chen, Shivakant Mishra and Youjian Eugene Liu
	Tweeting your Destiny: Profiling Users in the Twitter Landscape around an Online Game	Guenter Wallner, Simone Kriglstein and Anders Drachen
	Modelling Early User-Game Interactions for Joint Estimation of Survival Time and Churn Probability	Valerio Bonometti, Charles Ringer, Alex Wade and Anders Drachen
	Using Active Probing by a Game Management AI to Faster Classify Players	Arkady Eidelberg, Christian Jacob and Jorg Denzinger

Track	Title	Authors
Benchmarks and Competitions	Two Human-Like Imitation-Learning Bots with Probabilistic Behaviors	Chris Pelling and Henry Gardner
	ToriLLE: Learning Environment for Hand-to-Hand Combat	Anssi Kanervisto and Ville Hautamäki

Track	Title	Authors
Game Design	Mek: Mechanics Prototyping Tool for 2D Tile-Based Turn-Based Deterministic Games	Rokas Volkovas, Michael Fairbank, John Woodward and Simon Lucas
	Level Design Patterns in 2D Games	Ahmed Khalifa, Fernando de Mesentier Silva and Julian Togelius
	Towards Cheap Scalable Browser Multiplayer	Yousef Amar, Gareth Tyson, Gianni Antichi and Lucio Marcenaro
	The Games Fusion Project: Competencies for Game Design	Karen Shoop, Chris Lowthorpe, Larra Anderson and Simon Lucas

Track	Title	Authors
Game Theory and Multi-agent Systems	Using Simple Games to Evaluate Self-Organization Concepts: a Whack-a-mole Case Study	Nick Nygren and Joerg Denzinger
	Prisoner's Dilemma Agents with Phenotypic Plasticity	Daniel Ashlock, Amanda Saunders and Eunyoun Kim
	Parallel Nested Rollout Policy Adaptation	Andrzej Nagórko
	Logic foundations of manipulation as game mechanics	Javier Torres

Track	Title	Authors
Narrative and Interactive Entertainment	Timing Interactive Narratives	Thomas Cabioch, Ronan Champagnat, Anne-Gwenn Bosser, Jean-Noël Chiganne and Martin Dieguez

Track	Title	Authors
PCG and AI for Game Design	Angry Birds Level Generator with Rube Goldberg Machine Mechanism	Febri Abdullah, Pujana Paliyawan, Ruck Thawonmas, Tomohiro Harada and Fitra Bachtiar
	Automatic Generation of Diverse Cavern Maps with Morphing Cellular Automata	Matthew Kreitzer, Daniel Ashlock and Rajesh Pereira
	Pitako - Recommending Game Design Elements in Cicero	Tiago Machado, Dan Gopstein, Andy Nealen and Julian Togelius
	Procedural Progression Model for Smash Time	João Catarino and Carlos Martinho
	Procedural Generation using Spatial GANs for Region-Specific Learning of Elevation Data	Ryan Spick, Peter Cowling and James Alfred Walker
	Heuristics for Placing the Spawn Points in Multiplayer First Person Shooters	Marco Ballabio and Daniele Loiacono
	Generating Stages in Turn-Based RPG using Reinforcement Learning	Nam Sang Gyu and Kokolo Ikeda
	Searching the Latent Space of a Generative Adversarial Network to Generate DOOM Levels	Edoardo Giacomello, Pier Luca Lanzi and Daniele Loiacono
	Monster Carlo 2: Integrating Learning and TreeSearch for Machine Playtesting	Oleksandra Keehl and Adam M. Smith
	The Riddle of Tegelby	Daniel Ashlock and Christoph Salge

Track	Title	Authors
Serious Games Technology	Learning Analytics Should Analyse the Learning: Proposing a Generic Stealth Assessment Tool	Konstantinos Georgiadis, Giel van Lankveld, Kiavash Bahreini and Wim Westera
	Motion Gaming AI using Time Series Forecasting and Dynamic Difficulty Adjustment for Improving Exercise Balance and Enjoyment	Takahiro Kusano, Yunshi Liu, Pujana Paliyawan, Ruck Thawonmas and Tomohiro Harada
	Blockchain Games: A Survey	Tian Min, Hanyi Wang, Yaoze Guo and Wei Cai
	Realtime Adaptive Virtual Reality for Pain Reduction	Alexiei Dingli and Luca Bondin

Track	Title	Authors
Virtual and Augmented Reality	Rest Pose Considered Harmful in Virtual Reality	Julien Marengo, Phil Lopes and Ronan Boulic

Track	Title	Authors
Special Session 1: Matchmaking in Games	Resolving Simultaneity Bias: Using Features to Estimate Probability of Winning in Competitive Games	Anders Harboell Christiansen, Emil Gensby and Bryan S. Weber

Track	Title	Authors
Special Session 2: Esports Research: Challenges, Advances and Opportunities	Enhancing Battle Maps through Flow Graphs	Guenter Wallner
	Multi-View Joint Emotion and Game Context Recognition in League of Legends Live Stream	Charles Ringer, Mihalis Nicolaou and James Walker

Thu 22nd August 2019

8:30am - 10:30am

When: Thursday 22nd; 8:30am - 10:30am Where: See below *	Tutorials and coffee
When: Thursday 22nd; 8:30am - 10:30am Where: GC201 (Graduate Center building)	Understanding Playtesting Joseph Alexander Brown, Hama aslam
When: Thursday 22nd; 9:00am - 10:30am Where: Skeel Lecture Theatre	What Benchmarks can Teach us about AI-Assisted Game Design Boris Naujoks, Vanessa Volz
When: Thursday 22nd; 9:00am - 10:30am Where: People's Palace 1 (PP1)	Generative Design in Minecraft: a Tutorial for the AI Settlement Generation Competition Christoph Salge, Michael Cerny Green, Rodrigo Canaan, Julian Togelius
When: Thursday 22nd; 9:00am - 10:30am Where: People's Palace 2 (PP2)	Introduction to procedural Sound Generation using the Web Audio API Josh Reiss

*Coffee served at People's Palace Lobby, 8:30am - 9am

10:30am - 11:00am

When: Thursday 22nd; 10:30am - 11:00am Where: People's Palace Lobby	Coffee
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11:00am - 12:00pm

When: Thursday 22nd; 11:00am - 12:00pm Where: Skeel Lecture Theatre	Keynote 2 (Emily Short)
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12:00pm - 1:00pm

When: Thursday 22nd; 12:00pm - 1:00pm Where: Skeel Lecture Theatre	3-T1-RL-1-60 - Reinforcement Learning Chair: Santiago Ontañón	Paper type	Track
12:00pm - 12:20pm	Enhancing Rolling Horizon Evolution with Policy and Value Networks Xin Tong, Weiming Liu and Bin Li	Regular paper	AI for Playing Games
12:20pm - 12:40pm	A Reinforcement Learning Approach To Synthesizing Climbing Movements Kourosh Naderi, Amin Babadi, Shaghayegh Roohi and Perttu Hämäläinen	Regular paper	AI for Playing Games
12:40pm - 1:00pm	Deep Reinforcement Learning to train agents to survive in a multiplayer First Person Shooter: some preliminary results Daniele Piergigli, Laura Anna Ripamonti, Dario Maggiorini and Davide Gadia	Regular paper	AI for Playing Games

When: Thursday 22nd; 12:00pm - 1:05pm Where: People's Palace 1 (PP1)	3-T1-Game Design 2-60 - Game Design 2 Chair: Antonios Liapis	Paper type	Track
12:00pm - 12:20pm	An Analysis of Peer Presence Social Group Dynamics to Enhance Player Engagement in Multiplayer Games Mitchell Miller, Noah Paige, Guraik Claire and Christian Eckhardt	Regular paper	Game Design
12:20pm - 12:35pm	The Design Of A Clicker Game for Text Labelling Chris Madge, Richard Bartle, Jon Chamberlain, Udo Kruschwitz and Massimo Poesio	Short paper	Game Design
12:35pm - 12:50pm	Relax, It's a Game: Utilising Gamification in Learning Agile Scrum Development using Trello Nitin Naik and Paul Jenkins	Short paper	Game Design
12:50pm - 1:05pm	Towards Liveness in Game Development Andrew Martin and Simon Colton	Short paper	Game Design

When: Thursday 22nd; 12:00pm - 1:00pm Where: People's Palace 2 (PP2)	3-T1-Serious games 1-60 - Serious Games Chair: Riccardo Berta	Paper type	Track
12:00pm - 12:20pm	Group Interactions Manager for Multiplayer sERious games Samuel Gomes, Joao Dias and Carlos Martinho	Regular paper	Serious Games Technology
12:20pm - 12:40pm	Portability of Serious Game Software Components Wim van der Vegt, Wim Westera and Hub Kurvers	Regular paper	Serious Games Technology
12:40pm - 1:00pm	Exploring motor behaviours in bimanual interactive games Nuria Pena Perez, Laurissa Tokarchuk, Etienne Burdet and Ildar Farkhatdinov	Regular paper	Serious Games Technology

1:00pm - 2:00pm

When: Thursday 22nd; 1:00pm - 2:00pm Where: People's Palace Lobby	Lunch	ToG AE meeting Where: People's Palace 1 (Reserved)
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2:00pm - 3:30pm

When: Thursday 22nd; 2:00pm - 3:30pm Where: Skeel Lecture Theatre	4-T2-AI-2-90 - AI for Playiing Games 2 Chair: Maxim Mozgovoy	Paper type	Track
2:00pm - 2:20pm	Using Restart Heuristics to Improve Agent Performance in Angry Birds Tommy Liu, Jochen Renz, Peng Zhang and Matthew Stephenson	Regular paper	AI for Playing Games
2:20pm - 2:40pm	A Fighting Game AI Using Highlight Cues for Generation of Entertaining Gameplay Ryota Ishii, Suguru Ito, Ruck Thawonmas and Tomohiro Harada	Regular paper	AI for Playing Games
2:40pm - 3:00pm	Ensemble Decision Systems for General Video Game Playing Damien Anderson, Cristina Guerrero-Romero, Diego Perez-Liebana, Philip Rodgers and John Levine	Regular paper	AI for Playing Games

3:00pm - 3:15pm	Macro and Micro Reinforcement Learning for Playing Nine-ball Pool Yu Chen and Yujun Li	Short paper	AI for Playing Games
3:15pm - 3:30pm	Creating an Affective Fighting Game AI System with Gamygdala Kaori Yuda, Maxim Mozgovoy and Anna Danielewicz-Betz	Short paper	AI for Playing Games

When: Thursday 22nd; 2:00pm - 3:30pm Where: People's Palace 1 (PP1)	4-T2-APM-2-90 - Analytics and Player Modeling 2 Chair: Jacob Schrum	Paper type	Track
2:00pm - 2:20pm	Personality and Behavior in Role-based Online Games Zhao Wang, Anna Sapienza, Aron Culotta and Emilio Ferrara	Regular paper	Analytics and Player Modelling
2:20pm - 2:40pm	Weekly Seasonal Player Population Patterns in Online Games: A Time Series Clustering Approach Dulakshi Vihanga, Michael Barlow, Erandi Lakshika and Kathryn Kasmarik	Regular paper	Analytics and Player Modelling
2:40pm - 3:00pm	Reveal-More: Amplifying Human Effort in Quality Assurance Testing Using Automated Exploration Kenneth Chang, Batu Aytemiz and Adam M. Smith	Regular paper	PCG and AI for Game Design
3:00pm - 3:15pm	Profiling Players with Engagement Predictions Ana Fernández del Río, Pei Pei Chen and África Periañez	Short paper	Analytics and Player Modelling
3:15pm - 3:30pm	Inferring and Comparing Game Difficulty Curves using Player-vs-Level Match Data Anurag Sarkar and Seth Cooper	Short paper	Analytics and Player Modelling

When: Thursday 22nd; 2:00pm - 3:30pm Where: People's Palace 2 (PP2)	4-T2-PCG-1-90 - PCG and AI for Game Design Chair: Mike Cook	Paper type	Track
2:00pm - 2:20pm	General Analytical Techniques For Parameter-Based Procedural Content Generators Michael Cook, Simon Colton, Jeremy Gow and Gillian Smith	Regular paper	PCG and AI for Game Design
2:20pm - 2:40pm	Level Graph – Incremental Procedural Generation of Indoor Levels using Minimum Spanning Trees Bartosz von Rymon Lipinski, Simon Seibt, Johannes Roth and Dominik Abé	Regular paper	PCG and AI for Game Design
2:40pm - 3:00pm	Taksim: A Constrained Graph Partitioning Framework for Procedural Content Generation Ahmed Abuzuraiq, Arron Ferguson and Philippe Pasquier	Regular paper	PCG and AI for Game Design
3:00pm - 3:15pm	ELIMINATION from Design to Analysis Ahmed Khalifa, Daniel Gopstein and Julian Togelius	Short paper	PCG and AI for Game Design
3:15pm - 3:30pm	Towards Procedurally Generated Languages for Non-playable Characters in Video Games Joshua Sirota, Vadim Bulitko, Matthew Brown and Sergio Poo	Short paper	PCG and AI for Game Design

3:30pm - 4:00pm

When: Thursday 22nd; 3:30pm - 4:00pm Where: People's Palace Lobby	Coffee
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4:00pm - 6:10pm

When: Thursday 22nd; 4:00pm - 6:10pm Where: Skeel Lecture Theatre	5-T3-BP-120 - Best Paper Session Chairs: Diego Pérez Liébana and Sanaz Mostaghim	Paper type	Track
4:00pm - 4:20pm	Learning Policies from Self-Play with Policy Gradients and MCTS Value Estimates Dennis Soemers, Eric Piette, Matthew Stephenson and Cameron Browne	Regular paper	AI for Playing Games
4:20pm - 4:40pm	On the Effects of Simulating Human Decisions in Game Analysis Vanessa Volz and Boris Naujoks	Regular paper	PCG and AI for Game Design
4:40pm - 5:00pm	Generating Educational Game Levels with Multistep Deep Convolutional Generative Adversarial Network Kyungjin Park, Bradford W. Mott, Wookhee Min, Kristy Elizabeth Boyer, Eric N. Wiebe and James C. Lester	Regular paper	Serious Games Technology
5:00pm - 5:10pm	10 min break		
5:10pm - 5:30pm	Random Search-Control Parameters in Monte-Carlo Tree Search Chiara F. Sironi and Mark H. M. Winands	Regular paper	AI for Playing Games
5:30pm - 5:50pm	Mysterious Murder - MCTS-driven Murder Mystery Generation Corinna Jaschek, Tom Beckmann, Jaime Garcia and William Raffe	Regular paper	PCG and AI for Game Design
5:50pm - 6:10pm	Hyperstate Space Graphs For Automated Game Analysis Michael Cook and Azalea Raad	Regular paper	PCG and AI for Game Design

6:10pm - 6:40pm

When: Wednesday 21st; 6:10pm - 6:40pm Where: Skeel Lecture Theatre	Best Video Competition Chair: Simon Lucas
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Fri 23rd August 2019

8:30am - 9:00am

When: Friday 23rd; 8:30am - 9:00am Where: People's Palace Lobby	Coffee
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9:00am - 10:30am

When: Friday 23rd; 9:00am - 10:35am Where: Skeel Lecture Theatre	6-F1-AI-3-90 - AI Chair: Gary Greenwood	Paper type	Track
9:00am - 9:20am	Comprehensible Context-driven Text Game Playing Xusen Yin and Jonathan May	Regular paper	AI for Playing Games
9:20am - 9:40am	Solving Strong and Weak 4-in-a-Row Jos Uiterwijk	Regular paper	AI for Playing Games
9:40am - 10:00am	Learning to Select Mates in Evolving Non-playable Characters Dylan Ashley, Valliappa Chockalingam, Braedy Kuzma and Vadim Bulitko	Regular paper	Game Theory and Multi-agent Systems
10:00am - 10:20am	Evolution of Kiting Behavior in a Two Player Combat Problem Pavlos Androulakis and Zachariah Fuchs	Regular paper	Game Theory and Multi-agent Systems
10:20am - 10:35am	Deep Variational Autoencoders for NPC Behaviour Classification Everton Schumacker Soares and Vadim Bulitko	Short paper	PCG and AI for Game Design

When: Friday 23rd; 9:00am - 10:30am Where: People's Palace 1 (PP1)	6-F1-Levelgen-90 - Level Generation Chair: Matthew Stephenson	Paper type	Track
9:00am - 9:20am	Automatic Generation of Level Maps with the Do What's Possible Representation Daniel Ashlock and Christoph Salge	Regular paper	PCG and AI for Game Design
9:20am - 9:40am	Fusing Level and Ruleset Features for Multimodal Learning of Gameplay Outcomes Antonios Liapis, Daniel Karavolos, Konstantinos Makantasis, Konstantinos Sfikas and Georgios N. Yannakakis	Regular paper	PCG and AI for Game Design

9:40am - 10:00am	Empowering Quality Diversity in Dungeon Design with Interactive Constrained MAP-Elites Alberto Alvarez, Steve Dahlkog, Jose Font and Julian Togelius	Regular paper	PCG and AI for Game Design
10:00am - 10:15am	Object-Oriented State Abstraction in Reinforcement Learning for Video Games Yu Chen, Huizhuo Yuan and Yujun Li	Short paper	AI for Playing Games
10:15am - 10:30am	Learning Local Forward Models on Unforgiving Games Alexander Dockhom, Simon Lucas, Vanessa Volz, Ivan Bravi, Raluca Gaina and Diego Perez Liebana	Short paper	AI for Playing Games

When: Friday 23rd; 9:00am - 10:10am Where: People's Palace 2 (PP2)	6-F1-Serious games 2-90 - Serious Games 2 Chair: Allan Fowler	Paper type	Track
9:00am - 9:20am	Serious Games'Eco-driving Profiling Rana Massoud, Francesco Bellotti, Stefan Poslad, Riccardo Berta and Alessandro De Gloria	Regular paper	Serious Games Technology
9:20am - 9:40am	An Approach Towards Designing Problem Networks in Serious Games Abhishek Parakh, Parvathi Chundi and Mahadevan Subramaniam	Regular paper	Serious Games Technology
9:40am - 9:55am	Using Learning Games to Teach Texas Civil War History to Public Middle School Students Matthew Fendt and Eric Ames	Short paper	Serious Games Technology
9:55am - 10:10am	The Sustainability Game: AI Technology as an Intervention for Public Understanding of Cooperative Investment Andreas Theodorou, Bryn Brandt-Law and Joanna J. Bryson	Short paper	Serious Games Technology

10:30am - 11:00am

When: Friday 23rd; 10:30am - 11:00am Where: People's Palace Lobby	Coffee
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11:00am - 12:00pm

When: Friday 23rd; 11:00am - 12:00pm Where: Skeel Lecture Theatre	7-F2-Vision-60 - Vision Papers Chair: Mark Nelson	Paper type	Track
11:00am - 11:20am	Project Thyia: A Forever Gameplayer Raluca Gaina, Simon Lucas and Diego Perez Liebana	Vision paper	AI for Playing Games
11:20am - 11:40am	Experience Management in Multi-player Games Jichen Zhu and Santiago Ontañón	Vision paper	Analytics and Player Modelling
11:40am - 12:00pm	Procedural Content Generation through Quality Diversity Daniele Gravina, Ahmed Khalifa, Antonios Liapis, Julian Togelius and Georgios N. Yannakakis	Vision paper	PCG and AI for Game Design

When: Friday 23rd; 11:00am - 12:00pm Where: People's Palace 1 (PP1)	7-F2-Competition-60 - Competitions Chair: Vanessa Volz	Paper type	Track
11:00am - 11:20am	Blood Bowl: A New Board Game Challenge and Competition for AI Niels Justesen, Lasse Uth, Christopher Jakobsen, Peter Moore, Julian Togelius and Sebastian Risi	Competition paper	AI for Playing Games
11:20am - 11:40am	Rinascimento: Optimising Statistical Forward Planning Agents for Playing Splendor Ivan Bravi, Simon Lucas, Diego Perez and Jialin Liu	Regular paper	Benchmarks and Competitions
11:40am - 12:00pm	B2CI 2019: The IEEE Brain to Computer Interface Competition's Gaming Event Joseph M. McQuighan, Garima Bajwa and Jason Pittman	Competition paper	Benchmarks and Competitions

When: Friday 23rd; 11:00am - 12:00pm Where: People's Palace 2 (PP2)	7-F2-Hanabi-60 - Hanabi Chair: Joseph Walton-Rivers	Paper type	Track
11:00am - 11:20am	The 2018 Hanabi Competition Joseph Walton-Rivers, Piers Williams and Richard Bartle	Competition paper	AI for Playing Games
11:20am - 11:40am	Re-determinizing MCTS in Hanabi James Goodman	Regular paper	AI for Playing Games
11:40am - 12:00pm	Diverse Agents for Ad-Hoc Cooperation in Hanabi Rodrigo de Moura Canaan, Julian Togelius, Andy Nealen and Stefan Menzel	Competition paper	Benchmarks and Competitions

12:00pm - 1:00pm

When: Friday 23rd; 12:00pm - 1:00pm Where: Skeel Lecture Theatre	8-F3-e-sports-1-60 - esports Chair: Pieter Spronck	Paper type	Track
12:00pm - 12:15pm	Towards Multi-modal Stress Response Modelling in Competitive League of Legends Paris Mavromoustakos-Blom, Sander Bakkes and Pieter Spronck	Short paper	Special Session 2: Esports Research: Challenges, Advances and Opportunities
12:15pm - 12:35pm	Time to Die: Death Prediction in Dota 2 using Deep Learning Adam Katona, Ryan Spick, Victoria Hodge, Simon Demediuk, Florian Block, Anders Drachen and James Alfred Walker	Regular paper	Special Session 2: Esports Research: Challenges, Advances and Opportunities
12:35pm - 12:55pm	Evolving the Hearthstone Meta Fernando De Mesentier Silva, Rodrigo Canaan, Scott Lee, Julian Togelius and Amy K. Hoover	Regular paper	PCG and AI for Game Design

When: Friday 23rd; 12:00pm - 1:00pm Where: People's Palace 1 (PP1)	8-F3-GVR-1-60 - Graphics, VR and AR Chair: Rafa Bidarra	Paper type	Track
12:00pm - 12:20pm	The Illusion of Animal Body Ownership and Its Potential for Virtual Reality Games Andrey Krekhov, Sebastian Cmentowski and Jens Krüger	Regular paper	Virtual and Augmented Reality
12:20pm - 12:40pm	Modelling Player Preferences in AR Mobile Games Vivek Warriar, John Woodward and Laurissa Tokarchuk	Regular paper	Virtual and Augmented Reality
12:40pm - 12:55pm	ToonToy: a node-based NPR solution for UnrealEngine4 Emanuele Salvucci	Short paper	Graphics and Animation

When: Friday 23rd; 12:00pm - 1:00pm Where: People's Palace 2 (PP2)	8-F3-RL-2-60 - Reinforcement Learning 2 Chair: Kyung-Joong Kim	Paper type	Track
12:00pm - 12:20pm	Video Game Description Language Environment for Unity Machine Learning Agents Mads Johansen, Martin Pichlmair and Sebastian Risi	Competition paper	Benchmarks and Competitions

12:20pm - 12:40pm	A Generalized Framework for Self-Play Training Daniel Hernandez, Kevin Denamganai, Yuan Gao, Peter York, Sam Devlin, Spyridon Samothrakis and James Walker	Regular paper	Game Theory and Multi-agent Systems
12:40pm - 12:55pm	MazeNavigator: A Customisable 3D Benchmark for Assessing Generalisation in Reinforcement Learning Luke Harries, Sebastian Lee, Sam Devlin, Jaroslaw Rzepecki and Katja Hofmann	Short paper	Benchmarks and Competitions

1:00pm - 2:00pm

When: Friday 23rd; 1:00pm - 2:00pm Where: People's Palace Lobby	Lunch	Games Technical Committee meeting Where: Skeel Lecture Theatre (Open)
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2:00pm - 3:30pm

When: Friday 23rd; 2:00pm - 3:30pm Where: Skeel Lecture Theatre	9-F4-APM-3-90 - Analytics and Player Modeling 3 Chair: Paolo Burelli	Paper type	Track
2:00pm - 2:20pm	Desirable Behaviors for Companion Bots in First-Person Shooters Adina Friedman and Jacob Schrum	Regular paper	AI for Playing Games
2:20pm - 2:40pm	An Experiment on Game Facet Combination Raphael Patrick Prager, Laura Troost, Simeon Brüggjenjürgen, David Melhart, Georgios N. Yannakakis and Mike Preuss	Regular paper	Analytics and Player Modelling
2:40pm - 3:00pm	Scaling up CCG-Based Plan Recognition via Monte-Carlo Tree Search Pavan Kantharaju, Santiago Ontañón and Christopher Geib	Regular paper	Analytics and Player Modelling
3:00pm - 3:15pm	Characteristics Study of Dance-charts on Rhythm-based Video Games Yudai Tsujino, Ryosuke Yamanishi and Yoichi Yamashita	Short paper	Analytics and Player Modelling
3:15pm - 3:30pm	PsyRTS: a Web Platform for Experiments in Human Decision-Making in RTS Environments Omar Verduga and Magda Osman	Short paper	Analytics and Player Modelling

When: Friday 23rd; 2:00pm - 3:30pm Where: People's Palace 1 (PP1)	9-F4-Ludii-90 - Ludii Chair: Cameron Browne	Paper type	Track
2:00pm - 2:20pm	Ludii as a Competition Platform Matthew Stephenson, Eric Piette, Dennis J. N. J. Soemers and Cameron Browne	Vision paper	Benchmarks and Competitions
2:20pm - 2:35pm	An Empirical Evaluation of Two General Game Systems: Ludii and RBG Eric Piette, Matthew Stephenson, Dennis J. N. J. Soemers and Cameron Browne	Short paper	AI for Playing Games
2:35pm - 2:50pm	Ludii and XCSP: Playing and Solving Logic Puzzles Cédric Piette, Eric Piette, Matthew Stephenson, Dennis J. N. J. Soemers and Cameron Browne	Short paper	AI for Playing Games
2:50pm - 3:05pm	A Functional Taxonomy of Logic Puzzles Lianne Hufkens and Cameron Browne	Short paper	PCG and AI for Game Design

When: Friday 23rd; 2:00pm - 3:30pm Where: People's Palace 2 (PP2)	9-F4-PCG-2-90 - PCG and AI for Game Design 2 Chair: Simon Colton	Paper type	Track
2:00pm - 2:20pm	Optimising Level Generators for General Video Game AI Olve Drageset, Raluca Gaina, Diego Perez Liebana and Mark Winands	Competition paper	PCG and AI for Game Design
2:20pm - 2:40pm	Learning a Resource Scale for Collectible Card Games Gianluca Zuin and Adriano Veloso	Regular paper	PCG and AI for Game Design
2:40pm - 2:55pm	Automatic Generation of Game Content using a Non-Grid Wave Function Collapse Algorithm Hwanhee Kim, Seongtaek Lee, Hyundong Lee, Teasung Hahn and Shinjin Kang	Short paper	PCG and AI for Game Design
2:55pm - 3:10pm	PlayMapper: Illuminating Design Spaces of Platform Games Vivek Warriar, Carmen Ugarte, John Woodward and Laurissa Tokarchuk	Short paper	PCG and AI for Game Design
3:10pm - 3:25pm	Autoencoder and Evolutionary Algorithm for Level Generation in Lode Runner Sarjak Pankaj Thakkar, Changxing Cao, Lifan Wang, Taejong Choi and Juilian Togelius	Short paper	PCG and AI for Game Design

3:30pm - 4:00pm

When: Friday 23rd; 3:30pm - 4:00pm Where: People's Palace Lobby	Coffee
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4:00pm - 5:00pm

When: Wednesday 21st; 4:00pm - 5:00pm Where: Skeel Lecture Theatre	Keynote 3 (James Dean)
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5:00pm - 5:15pm

When: Wednesday 21st; 5:00pm - 5:15pm Where: Skeel Lecture Theatre	Closing Remarks
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