

**Automata Theory and Applications: Games,
Learning and Structures
(20 Sep 2021–24 Sep 2021)**

**ORGANIZING
COMMITTEE**

Sanjay Jain

National University of Singapore, Singapore

Sven Schewe

University of Liverpool, UK

Frank Stephan

National University of Singapore, Singapore



*[Registration](#) is required for this program.

Venue

Virtual: The details and link will be sent to you before the program commences after registration has been processed.



For more information: [Click here](#)

Workshop on Automata Theory and Applications: Games, Learning and Structures

(20–24 September 2021)

Time (GMT+0)	USA (GMT-10)	Canada (GMT-4)	UK (GMT+1)	Austria France Germany Italy Netherlands (GMT+2)	Thailand (GMT+7)	China Philippines Singapore (GMT+8)	Australia (GMT+10)	New Zealand (GMT+12)
0200	1600	2200	0300	0400	0900	1000	1200	1400
0530	1930	0130	0630	0730	1230	1330	1530	1730
0600	2000	0200	1700	0800	1300	1400	1600	1800
0830	2230	0430	0930	1030	1530	1630	1830	2030
1100	0100	0700	1200	1300	1800	1900	2100	2300

All times are indicated in **GMT+0**.

For time zones conversion: [Click Here](#)

Monday, 20 September 2021		
Time (GMT +0)	Title	Speaker
0750	Session Chair: Frank Stephan (National University of Singapore, Singapore)	
0750–0800	Opening address	Organizers
0800–0830	How to solve energy games by hand	Pierre Ohlmann IRIF, France
0830–0900	A computation model with automatic functions and relations on strings as a primitive operation	Ammar Fathin Sabili National University of Singapore, Singapore
0900–1030	Discussion: Game Theory and related topics	GATHER.TOWN

Tuesday, 21 September 2021		
Time (GMT +0)	Title	Speaker
0830	Session Chair: Sven Schewe (University of Liverpool, UK)	
0830–0900	Using probabilistic context-free grammars for program synthesis	Nathanaël Fijalkow LaBRI, CNRS, France

Tuesday, 21 September 2021		
Time (GMT +0)	Title	Speaker
0900	<i>Group Photo</i> (Kindly turn on your camera)	ZOOM
0900–1000	Universal trees for parity games and automata	Marcin Jurdziński University of Warwick, UK

Wednesday, 22 September 2021		
Time (GMT +0)	Title	Speaker
0630	Session Chair: Frank Stephan (National University of Singapore, Singapore)	
0630–0800	Discussion: Open Problems in Automata Theory	GATHER.TOWN
0800–0830	<i>Break</i>	
0830	Session Chair: Volker Diekert (FMI, Universität Stuttgart, Germany)	
0830–0930	Learning structures	Ekaterina Fokina Technical University of Vienna, Austria
0930–1000	Learning families of algebraic structures with the help of Borel equivalence relations	Luca San Mauro Sapienza University of Rome, Italy

Thursday, 23 September 2021		
Time (GMT +0)	Title	Speaker
0200	Session Chair: Bjørn Kjos-Hanssen (University of Hawaii at Mānoa, Hawaii)	
0200–0300	Deciding plainness in NP	Murray Elder University of Technology Sydney, Australia
0300–0400	The search for FA presentable groups	André Nies The University of Auckland, New Zealand
0400–0530	<i>Break</i>	
0530	Session Chair: André Nies (The University of Auckland, New Zealand)	
0530–0700	Discussion: Automatic structures	GATHER.TOWN
0700–0730	Recursive attractor-decomposition for parity games	Tom van Dijk Univeristy of Twente, Netherlands
0730–0800	<i>Break</i>	

Thursday, 23 September 2021		
Time (GMT +0)	Title	Speaker
0800	Session Chair: Frank Stephan (National University of Singapore, Singapore)	
0800–0900	Regular matching problems for infinite trees	Volker Diekert FMI, Universität Stuttgart, Germany
0900–1000	Automatic Structures: History and Perspectives	Erich Grädel RWTH Aachen University, Germany

Friday, 24 September 2021		
Time (GMT +0)	Title	Speaker
0200	Session Chair: Murray Elder (University of Technology Sydney, Australia)	
0200–0300	Automatic complexity	Bjørn Kjos-Hanssen University of Hawaii at Mānoa, Hawaii
0300	<i>Group Photo</i> (Kindly turn on your camera)	ZOOM
0300–0330	FA-presentations of Cayley graphs of groups	Dmitry Berdinsky Mahidol University, Thailand
0330–0400	Equivalences between learning of data and probability distributions, and their applications	George Barmpalias Chinese Academy of Sciences, China
0400–0700	<i>Break</i>	
0700	Session Chair: Sanjay Jain (National University of Singapore, Singapore)	
0700–0800	Good-for-games vs history-determinism in quantitative automata	Karoliina Lehtinen CNRS, Aix-Marseille Université, France
0800–0830	Modelling binary classification with computability theory	Karen Seidel Hasso Plattner Institute, Germany
0830–1000	Discussion: Inductive and other learning notions	GATHER.TOWN
1000–1100	<i>Break</i>	
1100–1200	Ng Kong Beng Public Lecture Series Adventures in Automata with a Theorem-Prover	Jeffrey Shallit University of Waterloo, Canada

For abstracts: [Click here](#)