

ORGANIZING COMMITTEE

Co-Chairs

Carlos Agon
Sorbonne Université

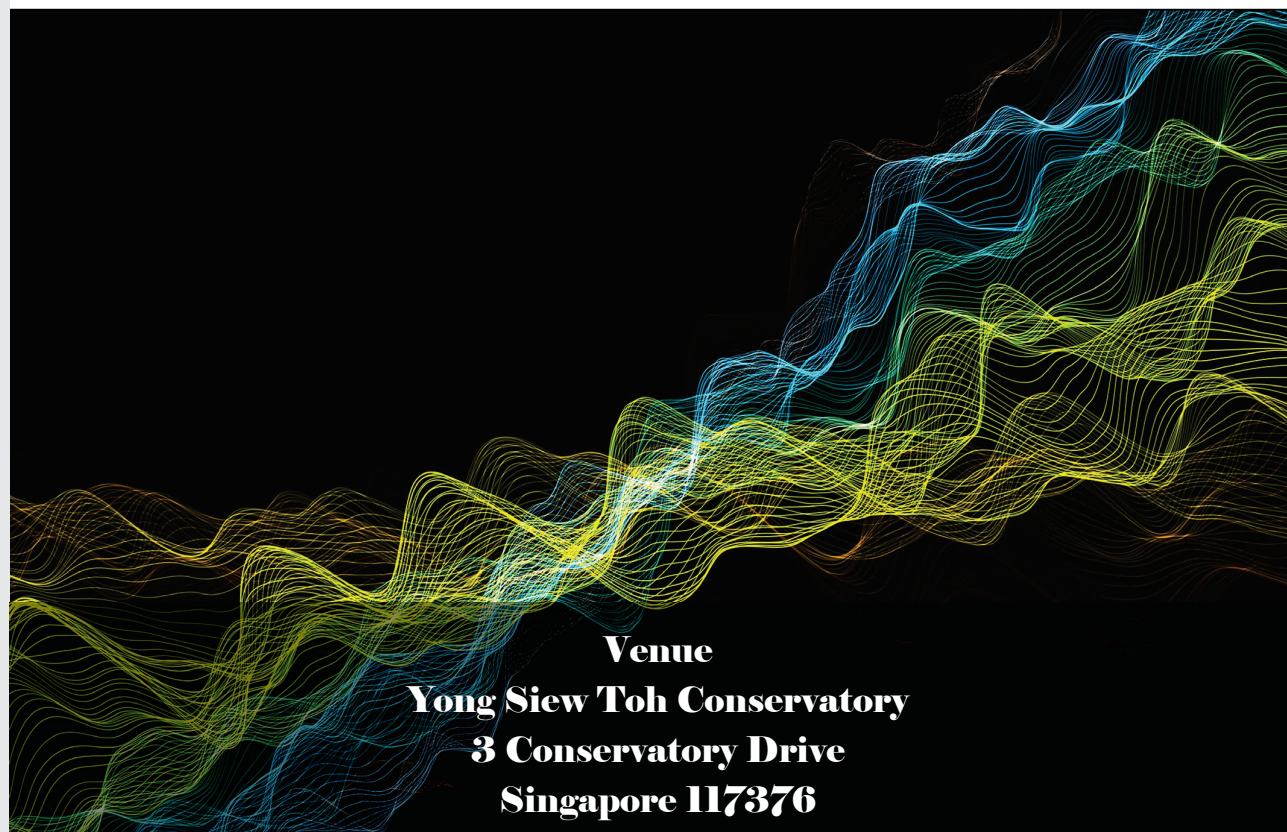
Moreno Andreatta
CNRS Institut de Recherche Mathématique
Avancée
University of Strasbourg

Gérard Assayag
Institut de Recherche et Coordination
Acoustique/Musique

Elaine Chew
King's College London

For more information:
<https://ims.nus.edu.sg/events/mathemusical/>

Mathemusical Encounters in Singapore : a Diderot Legacy (19 Feb 2024–23 Feb 2024)



Venue

Yong Siew Toh Conservatory
3 Conservatory Drive
Singapore 117376



Monday, 19 February
Mathematical and Computational approaches

Time	Speaker & Title	Venue
09.45–10.00	Registration	Box Office
10.00–10.15	Welcome address	
10.15–11.15	A New Model of Musical Hierarchy <i>Dmitri Tymoczko</i> <i>Princeton University</i>	Recital Studio
11.15–11.30	Short Break	
11.30–12.10	Mathematical morphology: Algebraic setting and applications <i>Isabelle Bloch</i> <i>Sorbonne University, Paris</i>	Recital Studio
12.10–14.30	Lunch Reception by YST Conservatory	
14.30–15.10	Syntactic Structures in Music <i>Martin Rohrmeier</i> <i>Digital and Cognitive Musicology Lab, EPFL</i>	Recital Studio
15.15–15.55	Coherence of Harmonic and Rhythmic Qualities <i>Jason Yust</i> <i>Boston University</i>	
15.55–17.00	Coffee Break by YST Conservatory	
17.00–17.40	Connecting Computational Models of Musical Structures with Developing Music Technology for Health, Wellbeing and Inclusion <i>Anja Volk,</i> <i>Utrecht University</i>	Recital Studio
17.40–19.30	Dinner Break	

Monday, 19 February
Mathematical and Computational approaches

Time	Speaker & Title	Venue
19.30	OPENING CONCERT <i>Margaret Leng Tan</i> <i>Scan QR for programme schedule</i>	 Conservatory Concert Hall

Tuesday, 20 February
Machine Learning, Generativity, Interaction

Time	Speaker & Title	Venue
09.45–10.00	Registration	
10.00–11.00	<i>Deep Learning for Musical Creativity</i> <i>Cheng-Zhi Anna Huang</i> <i>University of Montreal, Google DeepMind</i>	
11.00–11.15	Short Break	Recital Studio
11.15–11.55	<i>Modeling Creative Interaction Using Information Theory</i> <i>Shlomo Dubnov</i> <i>University of California, San Diego</i>	
11.55–15.15	Lunch Reception by YST Conservatory	
15.15–15.55	<i>Towards generative music AI models with multimodal controls</i> <i>Dorien Herremans</i> <i>Singapore University of Technology and Design, AMAAI Lab</i>	Recital Studio
15.55–17.00	Coffee Break by YST Conservatory	

Tuesday, 20 February
Machine Learning, Generativity, Interaction


Time	Speaker & Title	Venue
17.00–17.40	Generative modelling of speech: from human-like to expressive speech and beyond - a journey in Wonderland <i>Nicolas Obin</i> <i>IRCAM, STMS Lab</i>	Recital Studio
17.40–19.30	Dinner Break	
19.30	<u>Visiting Artist Series:</u> <u>Bertrand Giraud Piano Recital</u> <i>Bertrand Giraud & Albert Tiu</i> <i>Scan QR for programme schedule</i>	Conservatory Concert Hall



Wednesday, 21 February
Computational Physiology/Medicine

Time	Speaker & Title	Venue
09.45–10.00	Registration	
10.00–11.00	What Are Emotions and Why Does Music Elicit Them? <i>Julian F. Thayer</i> <i>University of California, Irvine & The Ohio State University</i>	Recital Studio
11.00–11.15	Short Break	
11.15–11.55	Neuroscience-inspired Sound and Music Computing for Human Health and Potential (SMC4HHP) <i>Ye Wang</i> <i>National University of Singapore, Sound & Music Computing Lab</i>	

Wednesday, 21 February
Computational Physiology/Medicine

Time	Speaker & Title	Venue
12.10–13.10	<u>Noon Recital</u> <i>Scan QR for programme</i>	 Conservatory Concert Hall
13.10–14.30	Lunch Reception by YST Conservatory	
14.30–15.10	The efficacy of music interventions for mental health and emotion mediation <i>Kat Agres</i> <i>National University of Singapore, YST Conservatory of Music, Centre for Music and Health</i>	Recital Studio
15.15–15.55	Music in Epilepsy Research: Physiological Effects and the Search for their Causes <i>Michael Casey</i> <i>Dartmouth College</i>	
15.55–17.00	Coffee Break by YST Conservatory	
17.00–17.40	The Physics of Drumming: Science & Art of Being Slightly Off <i>Esa Räsänen</i> <i>Tampere University</i>	Recital Studio

Thursday, 22 February
Education, Learning and Creativity


Time	Speaker & Title	Venue
09.45–10.00	Registration	

Thursday, 22 February
Education, Learning and Creativity

Time	Speaker & Title	Venue
10.00–11.00	Enhancing music learning and creativity with maths and AI <i>Andrew Milne</i> <i>Western Sydney University, Australia</i>	Recital Studio
11.00–11.15	Short Break	
11.15–11.55	Rhythm in the interactions between Autistic individuals <i>Rachel S. Y. Chen</i> <i>Nanyang Technological University, Singapore</i>	
12.10–13.10	<u>Maths & Music Lunch Concert</u>	Conservatory Concert Hall
	What happens when Maths meet Music? Come join us for a special lunch time concert featuring live improvisations and pieces inspired by our every day Math formulas. Listen to how composers cleverly weave these systems into their pieces, forming musical experiences like no other. <i>Scan QR code for programme</i>	
13.10–14.30	Lunch Reception by YST Conservatory	Recital Studio
14.30–15.10	Musical Spaces as Instrumental Spaces <i>Leah Frederick</i> <i>University of Michigan</i>	
15.10–15.30	Short Break	



Thursday, 22 February
Education, Learning and Creativity

Time	Speaker & Title	Venue
15.30–17.30	<p>Round table (hybrid format) on the Diderot Forum legacy and future perspectives (open online discussion with members of the Society for Mathematics and Computation in Music)</p> <p>Participants: Elaine Chew (King's College London) Emmanuel Amiot (editor-in-chief of the JMM) - remote Gérard Assayag (Ircam/CNRS STMS Lab, Paris) Hans Georg Feichtinger (University of Vienna) - remote Johanna Devaney (CUNY Graduate Center) - remote Jose Francisco Rodrigues (University of Lisbon) Monika Dörfler (University of Vienna) - remote Philippe Codognet (JFLI, Tokyo)</p>	Recital Studio
17.30–19.30	Cocktail Networking Session by YST Conservatory	
20.00–21.00	<p><u>Closing Concert</u></p> <p>Elaine Chew, Gérard Assayag, and Karst de Jong perform a varied programme of music featuring computer-aided improvisation</p> <p><i>Scan QR code for programme</i></p>	 Conservatory Concert Hall

Friday, 23 February
Students and Early Career Researchers Session: Maths & Music at Bachelor and PhD level

Time	Speaker & Title	Venue
09.45–10.00	Registration	

Friday, 23 February
Students and Early Career Researchers Session: Maths & Music at Bachelor and PhD level

Time	Speaker & Title	Venue
10.00–12.30	Using Mathematical Morphology to Discover Repeated Patterns in a Multidimensional Representation of Music <i>Paul Lascabettes</i> <i>Ircam/CNRS STMS Lab, Paris, France</i>	Recital Studio
	Mathematical Morphology as a tool for analyzing symbolic music <i>Gonzalo Romero</i> <i>Ircam/CNRS STMS Lab, Paris, France</i>	
	Exploring New Soundscapes: A Decatonic Framework for 7-limit Just Intonation <i>Nathanael Koh</i> <i>Australian National University, Australia</i>	
	Challenges and Insights in the Analysis of Musical Dynamics in Singing Voice <i>Jyoti Narang</i> <i>University Pompeu Fabra, Barcelona, Spain</i>	
	Computational models of musicians' physiological response to music: from detective work to opportunities <i>Mateusz Solinski</i> <i>King's College London, UK</i>	

This schedule is accurate as of 20 Feb 2024 and subjected to changes.