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

List of Speakers & Talks' Titles

Name & Affiliation	Talk Title
Day 1: Mathematical and Computational approaches	
Martin Rohrmeier Digital and Cognitive Musicology Lab École Polytechnique Fédérale de Lausanne	Syntactic Structures in Music
Isabelle Bloch Sorbonne University, Paris	Mathematical morphology: Algebraic setting and applications (Slides)
Dmitri Tymoczko Princeton University	A New Model of Musical Hierarchy (Slides)
Jason Yust Boston University	Coherence of Harmonic and Rhythmic Qualities (Slides)
Anja Volk Utrecht University	Connecting Computational Models of Musical Structures with Developing Music Technology for Health, Wellbeing and Inclusion
Day 2: Machine Learning, Generativity, Interaction	
Cheng-Zhi Anna Huang University of Montreal Google DeepMind	Deep Learning for Musical Creativity
Sholmo Dubnov University of California, San Diego	Modeling Creative Interaction Using Information Theory (Slides)
Dorien Herremans Singapore University of Technology and Design, AMAAI Lab	Towards generative music AI models with multimodal controls (Slides)
Nicolas Obin IRCAM, STMS Lab	Generative modelling of speech: from human-like to expressive speech and beyond - a journey in Wonderland (Slides)
Day 3: Computational Physiology/Medicine	
Julian F. Thayer University of California, Irvine The Ohio State University	What Are Emotions and Why Does Music Elicit Them?
Ye Wang National University of Singapore, Sound & Music Computing Lab	Neuroscience-inspired Sound and Music Computing for Human Health and Potential (SMC4HHP) (Slides)

Name & Affiliation	Talk Title
Kat Agres National University of Singapore, YST Conservatory of Music, Centre for Music and Health	The efficacy of music interventions for mental health and emotion mediation
Michael Casey Dartmouth College	Music in Epilepsy Research: Physiological Effects and the Search for their Causes
Esa Räsänen Tampere University	The Physics of Drumming: Science & Art of Being Slightly Off
Day 4: Education, Learning and Creativity	
Andrew Milne Western Sydney University, Australia	Enhancing music learning and creativity with maths and AI
Rachel S. Y. Chen Nanyang Technological University, Singapore	Rhythm in the interactions between Autistic individuals (Slides)
Leah Frederick University of Michigan	Musical Spaces as Instrumental Spaces (Slides)
Day 5: Student session	
Paul Lascabettes Ircam/CNRS STMS Lab, Paris, France	Using Mathematical Morphology to Discover Repeated Patterns in a Multidimensional Representation of Music (Slides)
Gonzalo Romero Ircam/CNRS STMS Lab, Paris, France	Mathematical Morphology as a tool for analyzing symbolic music (Slides)
Nathanael Koh Australian National University, Australia	Exploring New Soundscapes: A Decatonic Framework for 7-limit Just Intonation (Slides)
Yoti Narang University Pompeu Fabra, Barcelona, Spain	Challenges and Insights in the Analysis of Musical Dynamics in Singing Voice
Mateusz Solinski King's College London, UK	Computational models of musicians' physiological response to music: from detective work to opportunities (Slides)