



Lecture Series

MUSIC & MATHEMATICS

From Music to Responsible AI
Cynthia C. S. Liem
(Delft University of Technology, NL)

EINE KOOPERATION VON



Participation free of charge

Atelier in KunstQuartier
Bergstraße 12a, 1. OG, 5020 Salzburg

Webex Login Details:
<https://globalpage-prod.webex.com/join>
Meeting number (access code): 2733 126 4662
Meeting password: 7umSvfkZV42

In English

March 31, 2022
18h Salzburg (CEST)
Lecture online
and in person

MUSIC & MATHEMATICS

From Music to Responsible AI

Cynthia C. S. Liem (Faculty of Electrical Engineering, Mathematics and Computer Science, TU Delft, NL)

One of the major challenges in achieving trustworthy and responsible AI, is validating whether the systems we build actually do what we wish for them to do. In this, the balance needs to be found between that what can be measured, and that what we wish to achieve; here, mathematics, requirements, and human interpretation meet. In this lecture, Cynthia Liem discuss how the music domain has been a fertile ground for thinking about such questions, touching upon music signal representation, music interpretation, as well as music search and recommendation, from her both perspectives as an artist and technologist. Then, she will illustrate how this has helped her in her current projects in the broader space of trustworthy and responsible AI, touching upon inclusive information access, comprehensive testing strategies, and fair decision support systems.

Dr. Cynthia C. S. Liem, MMus, is Ass. Prof. in the Multimedia Computing Group of Delft University of Technology (NL), and pianist of the Magma Duo. Her research interests focus on making people discover new interests and content which would not trivially be retrieved in music and multimedia collections, assessing questions of validation and validity in data science, and fostering trustworthy and responsible AI applications when human-interpreted data is involved.

This series deals with the interdisciplinary approaches and perspectives between music and mathematics. The implementation and design is carried out together with international experts from the fields of mathematics, statistics, computer science, composition and music research and opens up insights into current research and developments in the border areas between the scientific fields.

This lecture is part of an interdisciplinary course in which invited speakers discuss topics in their respective fields of research.

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Concept & Direction

Arne Bathke

(Statistician, Data Scientist, Head of Program Area (Inter)Mediation | Department Artificial Intelligence and Human Interfaces, University of Salzburg)

Katarzyna Grebasz-Haring

(Systematic Musicologist | Program Area (Inter)Mediation, Interuniversity Institution Science & Art | University Mozarteum Salzburg, University of Salzburg)

Martin Losert

(Music Educator, Head of Department Musikpädagogik, Head of Program Area (Inter)Mediation | University Mozarteum Salzburg)

In cooperation with

Department Artificial Intelligence and Human Interfaces, University of Salzburg | Eliette and Herbert von Karajan Institute

Registration is required for participation in presence:

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