



April 29, 2021
18h Salzburg (CEST)
Online Lecture
In English

M

M

Lecture Series

MUSIC & MATHEMATICS

BEETHOVEN X:
ES KÖNNTE SEIN (IT COULD BE ...)

Mark Gotham
(Saarland University, DE)

Webex Login Details:

<https://globalpage-prod.webex.com/join>
Meeting number (access code): 121 727 3171
Meeting password: K2niUSgUt82
Participation free of charge

EINE KOOPERATION VON



MUSIC & MATHEMATICS

BEETHOVEN X: ES KÖNNTE SEIN (IT COULD BE ...)

Mark Gotham (Institut of Musicology, Saarland University, Saarbrücken, DE)



Concept & Direction:

Arne Bathke (Statistician, Data Scientist,
Head of Programme Area (Inter)Mediation,
Dean of the Faculty of Natural Science |
Department of Mathematics & SciTechHub
Itzling, University of Salzburg)

Katarzyna Grebosz-Haring (Systematic
Musicologist | Department of Musicology and
Dance Studies, Programme Area (Inter)Mediation,
Focus Area Science & Art | University Mozarteum
Salzburg, University of Salzburg)

Martin Losert (Music Educator,
Head of Department Music Education,
Head of Programme Area (Inter)Mediation |
University Mozarteum Salzburg)

Contact & Information:

ingeborg.schrems@sbg.ac.at | Tel. +43 662 8044 2380

In cooperation with

Department of Mathematics, University of
Salzburg and Karajan Institute, Salzburg

In 2020 Deutsche Telekom funded a project to create a realization of Beethoven's fragmentary sketches for a 10th symphony using machine learning and brought together a team of music and computer science experts. This talk will go through some key decisions in each constituent part of that process, including: making sense of Beethoven's scant and fragmentary plans for this work, converting those ideas into a machine-readable format, identifying suitable music generation tasks, identifying and sourcing suitable training materials for each task, and the curatorial decision-making process over which generations to use. This is casted as a possible prototype for future human-machine interactions - harnessing the processing powers now available to us, while giving human author(s) the final say. Additionally, this is also portrayed as not so dissimilar from traditional methods of composing which similarly involve the processing of options and the judicious selection thereof.

Mark Gotham is composer and computational music-theorist. He is a Wissenschaftlicher Mitarbeiter at the Saarland University and director of the non-profit for expanding access: fourscoreandmore.org

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.