

**Sounding Philosophy Conference**

***Dimensions***

**February 23-25, 2022**

**Grieg Academy**

**University of Bergen**



## Sounding Philosophy Conference— Dimensions

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The conference takes place in Gunnar Sævig's Sal at the Grieg Academy and combines a series of presentation sessions, as well as several selected concerts, both at The Grieg Academy and Johanneskirken (scroll down). Both the conference and the concerts are free to attend.

The conference is centered around the theme of "Dimensions". Presenters will look at dimensional concepts, thinking and working methods in artistic, philosophical and scientific disciplines. Questions about the nature of cognition, the borders of consciousness and artistic agency will certainly come to the forefront during this first seminar, which will combine artistic results, conference presentations and round-table discussions.

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### PROGRAM

**23 February 18:00 – 22:00 Opening of Symposium**

**Studio A, Grieg Academy**

**Dimensions 1 – Installation: Örjan Sandred and Max Sandred «Sonic Trails: Lockdown»**

Multimedia installation for video projections on three semi-transparent screens, quadraphonic sound, and artificial intelligence.

As the city enters a state of "Lockdown," the urban environment loses its most distinctive element: the human presence. Nonetheless, it would be a mistake to consider the city abandoned. As human activity withdraws, other processes and activities come into focus. Cars pass through empty streets, trees sway in deserted parks, birds roam uninhabited spaces.

In Sonic Trails: Lockdown, visitors are immersed in various events in the lockdown city occurring regardless of their presence. Using multiple audio-visual samples of these urban phenomena, the installation creates a new place for visitors to inhabit. Artificial intelligence algorithms determine the composition of this environment in a constant process of deconstruction and reconfiguration. Pitches and harmonies are dissected from environmental noises, familiar objects and places are reduced to abstract visuals and spaces, rhythms and motifs are brought to focus. The AI leaves nothing to chance by structuring its actions and interactions, constantly revealing new material and juxtapositions while occasionally bringing back existing themes. In this sense, the installation is a precise musical composition, experienced beyond the realm of sound as synesthetic, audio-visual, spatial experience.

Sonic Trails ultimately leads us somewhere beyond the samples of the alienating lockdown city. The patient visitor will discover an aesthetic world that is both abstract and palpable, static and active, infinite and intimate, rhythmic and disordered, clear and unclear. The installation generates its musicality by manipulating architectural qualities of sound, light, and space. Music and architecture are not treated as separate entities; rather, the environment of Sonic Trails becomes the musical experience. Ultimately, Sonic Trails: Lockdown attempts to unlock the reciprocity of music and architecture.

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**24 February 10:30 – 17:00, Gunnar Sævig's Sal at the Grieg Academy**

**17:00 – 18:00 Studio A at the Grieg Academy**

**19:00 Dimension 2 – Concert: selected works presented by Sergei Tchirkov**

**Gunnar Sævig's Sal at the Grieg Academy**

**SESSION 1: Composition with AI (10:30-11:30)**

**Moderator: Dániel Péter Biró, Grieg Academy, University of Bergen**

**10:30: Prof. Örjan Sandred, Desautels Faculty of Music, University of Manitoba.**

***“Controlling Musical Behavior Using Constraint Solvers”***

Sonic Trails is a multimedia installation that uses recordings from urban environments to create an immersive experience. Constraint solvers make decisions for how audio-visual samples are processed, moving between concrete and abstract visuals and soundscapes. The projections are in a constant process of deconstruction and reconfiguration, building a musical form that explores connections within the recorded material. Pitches and harmonies are dissected from environmental noises, familiar objects and places are reduced to abstract visuals and spaces, rhythms and motifs are brought to focus. My work as a composer in this project has been to build audio and video processing algorithms and to explore how to control these using constraint solvers. I did not want to write a score for how the installation unfolds, but instead to compose a musical behavior that the installation follows. By defining relationships between processing parameters, I created a framework for the constraint solvers to make decisions. The installation was created in collaboration with architect student Max Sandred.

**Örjan Sandred** is a Swedish-Canadian composer and is currently a Professor in Composition at the University of Manitoba in Canada where he founded Studio FLAT – a studio for Computer Music research and production. He taught composition at the Royal College of Music in Stockholm 1998-2005. In 2016 he was a DAAD visiting professor at Hochschule für Musik Detmold in Germany. Many of Sandred's pieces are the result of his search for new methods of composition. He has composed a series of pieces that include live electronics. Lately he has also included live video processing in his music.



**11:00: Juan Vassallo, PhD Candidate, Grieg Academy, University of Bergen**

***“Versificator: A Co-Creative Algorithmic Agency for Contemporary Music”***

This artistic research project reflects on the world of possibilities that afford the use of rule-based computer-assisted music composition tools and artificial intelligence as a means for investigating and developing stronger symbolic and perceptual relationships between musical structures and human language -considered as a general term which includes mainly speech and its written equivalent-. As a means for investigating these potentialities, I am currently developing a computational co-creative system named 'Versificator', conceived as a metaphor and a way of bringing to life the original Versificator, a fictional

generative device created by George Orwell in the novel "Nineteen hundred and eighty-four" (1949), described in the book mainly as a generator for music and text. Within this project, the Versificator is reframed as a technology that potentially extends the basic creative mechanism in favor of novel searches: A kind of cognitive assemblage that facilitates a novel approach towards contemporary music composition, by means of the establishment of multidimensional mappings between a complex network of musical and linguistic materials and structures.



**Juan Sebastián Vassallo** is a composer based in Bergen (Norway), holds a Master's degree in Interdisciplinary Studies (Music and Psychology), and currently pursuing his PhD in Artistic Research at the University of Bergen. His previous work has been characterized by collaborative and interdisciplinary artistic endeavors that explore the production possibilities that arise from the interaction between traditional and contemporary musical expressions and real-time processing of sound, coupled with instrumental improvisation and chance, resulting in non-predictable and unrepeatable new musical and sound spaces. His current research aims to explore possibilities for human-computer interaction and artificial intelligence for music composition, seeking to develop meaningful connections between sound, music, and human language.

### Coffee break (11:30-11:45)

### SESSION 2: "Compositional Ontology and Sonic Awareness" (11:45-12:45)

**Moderator: Prof. Örjan Sandred, Desautels Faculty of Music, University of Manitoba**

**11:45: Tijs Ham, PhD Candidate, Grieg Academy, University of Bergen**

#### *Dread & Promise*

In his talk, 'Dread & Promise', Tijs Ham investigates the temporal aspects of his practice situation in live-electronic music. When music is informed by chaotic processes and unpredictability, meaning and appreciation arise out of the surprising encounters with the unknown. These surprises indicate an inability to predict one's present, leading to episodes of rapid recalibration that leave vivid marks in memory. Within these fleeting moments, vertigo, uncertainty, or at other times realization and clarity are consciously experienced, becoming the foundation of further sonic exploration. It is precisely in these moments that new insights, and with it, meaning emerges.

**Tijs Ham** ('81) is a Ph.D. candidate in Artistic Research within the music department of the faculty of Art, Music, and Design of the University of Bergen, Norway. His artistic practice is situated in the field of live electronic music with a particular focus on the exploration of chaotic processes as he designs new electronic music instruments, develops often audio-visual compositions, and performs these onstage. Before moving to Norway, Ham worked at 'STEIM (The Studio for Electro-Instrumental Music)' in Amsterdam, The Netherlands. He is a founding member of 'The Soundlings Collective', releases music under the moniker 'Tapage', and is a member of the live electronics trio 'The Void\*'.



**12:15 Sergej Tchirkov, PhD Candidate, Grieg Academy, University of Bergen**  
***“The Listening Hand: from Sound to Klang”***

The presentation discusses the corporeal dimension in Pierluigi Billone’s music and reflects on the ontological role of performer’s body in the production of musical meaning. Several works by Billone have the word *mani* (hand – it.) in the title. Not only is the hand the focal point of the body (Billone, 2014), but it also connects physical body, instrument and the experience embodied in it. It lets the sonic vibrations come from within the instrument and creates a complex phenomenon of *Klang*. *Klang* is seen as a musical body (*ein musikalischer Körper*) a fifth dimension, which results from the interaction between the instrument, music, body and communication – the notions that Lessing identifies as the four dimensions (Lessing, 2014; Rüdiger, 2007). In Billone’s case this interaction is enabled by the performer’s hand.

**References:**

Billone, Pierluigi (2014): Mani. De Leonardis. Available at: [https://www.pierluigibillone.com/it/testi/mani\\_de\\_leonardis.html](https://www.pierluigibillone.com/it/testi/mani_de_leonardis.html)

Lessing, Wolfgang (2014): Versuch über Technik. In: Hiekel, J.P. Lessing, W. (Eds.): Verkörperung der Musik. Interdisziplinäre Betrachtungen. Bielefeld: transcript 2014, p. 13–60.

Rüdiger, Wolfgang (2007): Der musikalische Körper. Ein Übungs- und Vergnügungsbuch für Spieler, Hörer und Lehrer, Mainz: Schott

**Sergej Tchirkov** studied accordion performance and music in St.Petersburg. His interest in new music has led him to numerous collaborations with composers, such as Pierluigi Billone, Hanna Eimermacher, José María Sánchez Verdú, Ivan Fedele, Tamara Friebe, Klaus Lang, Elena Rykova, Dieter Schnebel, Gérard Zinsstag, Ida Lunden, Boris Filanowski, Sergej Newski, Thomas Kessler and more. Around 300 works for accordion have been premiered by Tchirkov. A regular guest musician of Collegium Novum Zürich, musicAeterna a.o. Sergej Tchirkov has also performed with leading European orchestras under Teodor Currentzis, Valery Gergiev, Wladimir Jurowski. Tchirkov has lectured at many European universities of music. In 2013 - 2021 he was deputy artistic director of the Studio for New Music ensemble and university lecturer in contemporary music at Moscow Tchaikovsky Conservatory. He currently works as a research fellow in artistic research at the University of Bergen, Department of Fine Art, Music and Design, the Grieg Academy.



**Lunch break from 12:45 to 13:45**

**SESSION 3: Art and the Expanded Consciousness (13:45-16:45)**

**Moderator: Juan Vassallo, PhD Candidate, Grieg Academy, University of Bergen**

**13:45: Assoc. Prof. Simon Gilbertson, Grieg Academy, University of Bergen**

***“Severe Traumatic Social Brain Injury and Music Therapy”***

When an individual is injured, contrasting philosophical routes are available in responding to the phenomenon of injury. If domains including consciousness, perception, cognition are ontologically located within the one individual being then, in some places, things are pretty much the same they have been for a few hundred years. But what if things are a bit more complex, distributed, assembled, enacted as has more recently been suggested? Could we ontologically imagine this as an





injury of traumatic social nature that requests a reconsideration of the dimensions of consciousness, perception, cognition, and co-creative music practices to name just a few.

**Simon Gilbertson**, Dr.rer.medic. has been Associate Professor at the Grieg Academy since 2010. His doctoral thesis examined improvisation and severe head injury in 2004 (Germany) he completed his music therapy education in 1993 (UK). Simon's work focuses on systemic and sensorial discrimination, human inseparability, epistemological and ontological diversity in research and education. He has been on the Scientific Advisory Board of the Grieg Research School for Interdisciplinary Music Studies since 2014. Simon is a member of four research groups: LGBTI-research at UiB, GAMUT, UiB's Philosophy of Mind Research Group and the "Kokonowa research group for clinical music practices", Tokyo, Japan.

**14:15: Round Table Discussion with Asoc. Prof. Simon Gilbertson, Grieg Academy, UiB and Prof. Karsten Specht, Professor, Deputy Dean Department of Biological and Medical Psychology Faculty of Psychology, UiB**

**14:45: Workshop with Klangforum Heidelberg workshopping compositions by Julia Constance Wiger-Nordås, Erik Håkon Halvorsen and Juan Vassallo**



**Julia Constance Wiger-Nordås:**

*Implosion* for solo cello

Performed by Jessica Kuhn, Violincello, Klangforum Heidelberg

Written April, 2021

**Julia Constance Wiger-Nordås** was born in Bergen in 2001. She studies composition with Daniel Peter Biro at the Grieg Academy.

**Jessica Kuhn** studied in Germany and the USA with Wolfgang Mehlhorn and Natalia Gutman, among others. With her complete recording of Giacinto Scelsi's "Trilogia" in 2005 (cello solo), Jessica Kuhn positioned herself in the new music scene. As a member of the following soloist ensembles: Das Neue Ensemble, Klangforum Heidelberg, Ensemble Plus Bregenz and Oh-Ton Oldenburg, she has performed in Europe, Russia, the USA, Canada and Lebanon. She has worked with the conductors Peter Eötvös, Peter Rundel and Enno Poppe as well as with the composers Harrison Birtwistle and Helmut Lachenmann. Jessica Kuhn is a regular guest at the



Musikfabrik Köln and has played in the Munich Chamber Orchestra and the Camerata Salzburg. She is principal cellist of the Bavarian Chamber Orchestra. In 2013 Jessica Kuhn founded the Munich concert series sonorizzonte, in which she presents her wide-ranging repertoire from baroque music to music of the 21st century.

### **Juan Vassallo: *versificator-render 3***

#### **For Five Voices**

#### **Schola Heidelberg**

The piece *versificator-render 3* is based on the implementation of a modular rule-based composition system based on constraints-solving algorithms and stochastic models. Four different modules generate different types of musical material composed of pitches, durations, dynamics and articulations, together with text to be vocalized, consisting of independent phonetic material and phonotactical rule-based generated pseudo-words. Another module is finally responsible for generating the formal plot of the work by determining the temporal array of the material. This piece is framed within my current artistic research project as a PhD candidate at Griegakademiet (UiB), in which I investigate on the affordances of using artificial intelligence and computer-assisted composition tools as a means for artistic creation, with the conviction that these facilitate a novel approach towards contemporary music composition, by means of the establishment of multidimensional mappings between a complex network of musical and linguistic materials and structures.

### **Erik Håkon Halvorsen:**

#### ***Theory of Attributes***

#### **For Five String Instruments (2022)**

#### **ensemble aisthesis**

In his philosophical work *Ethics*, Spinoza claims that Nature is substance, and that God is nature - an infinity. The substance is the stage of our reality which is made up of attributes with different modes. Simply explained, a stone is made up of attributes, and its size and shape are its modes. Two or more of the same substance with similar modes and attributes cannot exist, and the more reality, or being a thing has, the greater the number of attributes. I have interpreted and tested this theory in the work on "Theory of Attributes": -Pitch, and time are attributes. -Dynamics, timbre, distortion and duration are modes. I have explored the concept of substance in time: Organic time - time as a canvas for the sounding - substance. Time dimensions - duration created by the sound, in that way the music and the sound determine the time. Use of fermats and time signatures open to interpretation - avoid locking time in measured units - organic time. All material in the composition is taken from three transcriptions of nature in a small forest behind my home: Black thrush moves around in the leaves. A trickling stream - 3-voice polyphony - simultaneous rhythmic figures with different pitches play against each other.

Simultaneous birdsong - polyphony 3 voices - near and far - phrases with specific shape and gestures in interaction.



In addition to publishing his own music with the Erik Halvorsen Trio, who with his debut album in 2007 received a warm reception from the press, among others. a BBC music <http://www.bbc.co.uk/music/reviews/nhmq/> he has collaborated with a number of artists and various constellations (Sondre Lerche, Angelique Kidjo, Olav Dale, Helen Eriksen, Anne Grete Preus, Bergen Big Band, Bit 20 and Sjøforsvarets Musikkorps), worked with music for theater (Riksteateret and DNS) and was conductor, co-organizer and musician on the Nrk series Muite Mu season 1 and 2. Halvorsen has had a long-term collaboration with the Sami artist Johan Sara jr. which has resulted in a number of releases and tours at home and abroad. In the spring of 2019, Halvorsen completed a master's degree in

composition at the Grieg Academy. In his composition work, Erik has immersed himself in different types of time in music, and philosophical reflections on how we perceive, experience and understand time. He has written music for, among others, other Tromsø duo Mean Steal and Ensemble Noor. In addition to working as a freelance musician and composer, he teaches piano at Langhaugen VGS.

### **KlangForum Heidelberg**

The SCHOLA HEIDELBERG was founded by Walter Nußbaum in 1992 as a solo vocal ensemble. Under his direction, the members of the ensemble perform mainly music from the 20th and 21st centuries and of the 16th and 17th centuries. Their main focus is a perfect interpretation of various styles as well as the use of different (also microtonal) intonations and of contemporary vocal techniques such as breathing and speaking sounds. The ensemble has formed close bonds with composers of the avant-garde like Heinz Holliger, Helmut Lachenmann, Caspar Johannes Walter, Hans Zender, Carola Backholt and Erik Oña, and has initiated many new compositions such as the composition series from the Wunderhorn and Prinzhorn projects. Since 1993, the vocal ensemble has been united with the instrumental ensemble *aisthesis* at The **KlangForum Heidelberg**.

The SCHOLA HEIDELBERG performs regularly in Heidelberg and has been invited to Wittener Tage für Neue Kammermusik in Witten, Lucerne Festival, Biennale di Venezia, musica viva in Munich, to Kasseler Musiktage, to the Biennale and the exposition Expo 2000 – both in Hannover, to Gewandhaus and the MDR Musiksommer – both in Leipzig, to the Hessischer Rundfunk and Museum für Moderne Kunst – both in Frankfurt, to the UltraSchall Festival in Berlin, and also to Birmingham and Korea. CD recordings of the ensemble with music by Helmut Lachenmann released at KAIROS in 2001 and vocal compositions of the 20th century, which were released at BIS, were highly acclaimed and have won several international awards. Lachenmann's compositions were also released on DVD in cooperation with the Bayerischer Rundfunk as *Furcht und Verlangen* in 2005 and with KAIROS 2009. Further publications were made in 2008: Gérard Grisey composition *Les Chants de l'amour* with SCHOLA HEIDELBERG and Helmut Lachenmann's NUN in cooperation with the ensemble Modern Media.

The *ensemble aisthesis* (Greek, meaning: perception, to understand with your senses) has specialized exclusively in the music of the 20th and 21st century. Its instrumentalists compile not only the "classics of Modernism" like Schönberg, Webern, Boulez, Stockhausen, Cage, but also present day compositions in cooperation with their composers such as Helmut Lachenmann, Caspar Johannes Walter, Michael Reudenbach, Carola Bauckholt, Wolfgang Motz, Karin Hausmann, and Konrad Boehmer. With its extensive repertoire of compositions, requiring up to 20 musicians, the ensemble regularly performs in Heidelberg, but has also been invited to "musica viva" in Munich, to the "mdr Musiksommer", to "Romanische Nacht" in Cologne in 2006, to "Kasseler Musiktage" and "Basler Musikforum". In 2008, the *ensemble aisthesis* performed together with the SCHOLA HEIDELBERG at the "Centre for Art and Media" in Karlsruhe for the premiere of Mathias Ockert's composition *Premium Mobile*. The rediscovery of the composer René Leibowitz is expected to receive special attention. The collection *Nuits – weiß wie Lilien* (Nights – white as Lilies), released in 2001, was in cooperation with SCHOLA HEIDELBERG. Furthermore, the *Komponistenportrait II* with René Leibowitz's compositions on the label HR Frankfurt. Website: <https://klangforum-heidelberg.de/en>

**Coffee break (16:45-17:00)**



**17:00: Concert: EDGELANDS (Studio A)****Prof. Trond Lossius, The Norwegian Film School, The Grieg Academy Edgelands (Studio A)****Composing with suburban soundscapes****Moderator, Dániel Péter Biró, Grieg Academy, University of Bergen**

Edgelands (2019) starts from a series of field recordings from the suburb and fringes of the city. These zones are critical as urban infrastructures, residential areas and for transport and industry. Still, they come across as bland and anonymous, haphazardly developed and aesthetically neglected. The suburban field recordings reveal an Anthropocene reality. Insects, birds, wind and water cohabit the sonic environment alongside footsteps, voices, dogs, traffic, trains, metros, ventilation fans, aeroplanes and helicopters. Edgelands makes use of field recordings from Bergen, Stockholm, Stoke on Trent, Cape Town and Windhoek. Commissioned by NOTAM, Edgelands premiered at the Ultima festival in 2019.



**Trond Lossius** investigates relations between sound, place and space in field recordings, audio-visual installations and collaborative cross-disciplinary projects. Using surround (Ambisonic) microphones he records places rather than sounds, primarily engaging with suburban sound environments. He develops open-source software for spatial audio and real-time media for his projects, and he has published research in international conferences and journals on sound and music

computing. Trond Lossius holds a MA in geophysics, studied music composition, and a PhD in artistic research from Academy of Fine Art, Bergen National Academy of the Arts. He has formerly been Head of Research at Oslo National Academy of the Arts, and is currently a professor and PhD-leader at The Norwegian Film School, Inland University of Applied Sciences and professor II at The Grieg Academy, The University of Bergen.

**Diner break (18:00 – 19:00)**

## Dimension 2 – Concert: selected works presented by Sergei Tchirkov

### Gunnar Sævig's Sal at the Grieg Academy, 24 February, 19:00

*“I am fine, but I am trembling”*



Sergej Tchirkov accordion

Sofia Gubaidulina (\*1931) *De Profundis* (1978)

Francisco Corthey (\*1991) *“Estamos bien, pero tiemblo...”*  
(2022) first performance

Pierluigi Billone (\*1960) *Mani. Stereos* (2009)

Tijs Ham *Vivid Forgetfulness*

Renee Gladman *PATOVA, Anna: I Thought of Architecture* —from *The Ravickians*

(as read by Dániel Péter Biró)

Why do we go to concerts? Are we looking for music, hoping to experience something new? But *where* is music? Should one look in the scores, or somewhere else? In composer's diaries and personal letters, maybe? In the documentation of performances? Can one find it and literally grasp it?

Let us assume that the music happens at the concerts and our experience of it is influenced by the performer. The concert hall. The instrument. The performer and his body. Why body? Let us narrow down all these questions to one:

*How can a performer's body unleash hidden processes that constitute the fragility of the performance and elusiveness of a concert experience?*

The program of the concert is an attempt to present three different perspectives on the topic. All three composers have obviously different responses. Sofia Gubaidulina, being a professed Orthodox herself in the times when any religious references were banned in the Soviet Union, uses the symbolic universality of the Latin version of Psalm 130 : 'Out of the depths I cry to you, Lord' ('De profundis clamavi ad te, Domine'). Human suffering and doubt, represented through an innovative exploration of the accordion timbre and playing techniques, are being juxtaposed with the eternal light of the divine reality. The divine nature is pictured with the simple chords in the high register. The work was written in 1978 and became one of the first compositions that shaped the image of the contemporary accordion.

The impulse for the composition of Francisco Corthey has been given by a poem 'Si, mi amiga...' by Juan L. Ortiz (1896-1978). The elusive nature of human experience is reflected in a precarious sonic world of Corthey's music, which is based on the transformations between the tones, performer's physical gestures, murmured or whispered text fragments. "I'm fine, but I 'm trembling" – this first phrase of Ortiz' poem precisely describes the relationship between the performer and the score. Although the score does not contain almost any elements that could be described as technically difficult, the performer's agency is constantly being challenged by these transformations. The performer is encouraged to deconstruct her or his relationship with the instrument, in order to create the experience of the precarity of sound (or in sounds?) – an experience that can never be appropriated, but that is meant to be a *shared* experience.

### **Tijs Ham** *Vivid Forgetfulness*

'Vivid Forgetfulness' is a 'focussed listening' composition for accordion (Sergej Tchirkov) and chaotic live-electronics (Tijs Ham). The score consists of a meshwork of bifurcating trajectories, guiding each performer and the audience through a maze of suggestions aimed to focus and fine-tune their listening. Within this state of sonic awareness, there is a range of performative choices, steering the music into areas of tenuous friction, serendipitous support, or strange attraction, as the sequences of decisions poetically interfere with the sonic landscape. If a normative happens to be established, it is never there to stay, as the potential for disruption and collapse lingers just around the corner as a new set of instructions unfolds. Although one could trace around the bending paths in repeating cycles, the suggestions will always be met within a soundscape marked by differences, allowing the performance to continuously evolve until it reaches its eventual conclusion.



**Renee Gladman** is a writer and artist preoccupied with crossings, thresholds, and geographies as they play out at the intersections of poetry, prose, drawing and architecture. She is the author of thirteen published works, including a cycle of novels about the city-state Ravicka and its inhabitants, the Ravickians—*Event Factory* (2010), *The Ravickians* (2011), *Ana Patova Crosses a Bridge* (2013) and *Houses of Ravicka* (2017)—as well as two collections of drawings, *Prose Architectures* (2017) and *One Long Black Sentence*, a series of white ink drawings on black paper, indexed by Fred Moten (2020). Recent essays and visual work have appeared in *The Paris Review*, *Gulf Coast*, *Granta*, *Harper's*, *BOMB* magazine, *e-flux* and *n+1*. She has been awarded fellowships, artist grants, and residencies from the Radcliffe Institute for Advanced Study at Harvard, Foundation for Contemporary Arts, the Lannan Foundation, and KW Institute for Contemporary Art (Berlin), and is a 2021 Windham-Campbell Prize winner in fiction. She makes her home in New England with poet-ceremonialist Danielle Vogel.

**Francisco Corthey** (b.1991), studied composition and orchestral conducting in La Plata, Buenos Aires (Argentina) with Mariano Etkin and Cecilia Villanueva, among others. He then moved to the USA where he finished a Master's degree in composition, tutored by Martin Gendelman. He is currently finishing an international diploma also in composition at UiB - Griegakademiet, tutored by Dániel Péter Biró.



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## PROGRAM 25 February

**10:00 - 12:00 Gunnar Sævig's Sal at the Grieg Academy**

**13:00 - 16:00 Room 206, Grieg Academy**

**19:00 Dimensions 3 – Concert: Norwegian premiere of ETHICA by Dániel Péter Biró. Johaneskirken, Sydneplassen 5, 5007 Bergen**

### SESSION 4: Spinoza's Intuition (10:00-12:00)

**Moderator: Asoc. Prof. Simon Gilbertson, Grieg Academy, University of Bergen**

**10:00: Prof. Alexander van der Haven, Department of Archaeology, History, Cultural Studies and Religion, UiB.**

*“The 1702 arrest of the Danish religious visionary Oliger Pauli in the context of his politico-religious milieu of Socinians and Spinozists in Amsterdam.”*

For years, the Danish visionary and ‘stadholder of the messiah’ Oliger Pauli had published his visions in Amsterdam unhindered by the Amsterdam authorities. In 1702, however, the city’s judges sent him to prison and heavily fined his publishers. Pauli’s prosecution shows where lay the limit of religious freedom in Amsterdam in the decades following

Spinoza’s death and the publication of his works, namely when authority was defied and what were regarded as Spinozist and anti-trinitarian beliefs were publicly proclaimed and disseminated.



**Alexander van der Haven** (PhD History of Religions, University of Chicago Divinity School) is Professor in the Study of Religion at the University of Bergen. He has been Assistant Professor of Religious Studies at Webster University in St. Louis and Visiting Assistant Professor of Religious Studies at Leibnitz University of Hannover. He has held research appointments at the Hebrew University, Ben-Gurion University of the Negev, and the Open University of Israel. His research of the last years has focused on Jewish-Christian relations in the early modern Dutch Republic.

**10:30: Prof. Dániel Péter Biró, Grieg Academy, University of Bergen**

*“Immigration and Return in the Ethica Composition Cycle after Baruch Spinoza”*

The Ethica composition cycle explores Spinoza’s philosophy of the mind while simultaneously considering the historical dilemma of a 17<sup>th</sup> century Jewish immigrant in the Netherlands from the perspective of modern-day globalized existence. Following this historical trajectory, the composition cycle integrates phonetic aspects of Spinoza’s text with melodic material

derived from Portuguese plainchant from the time of the Jewish expulsion and Torah trope from the Portuguese synagogue in Amsterdam. Integrating elements of these chant traditions from Dutch immigrant communities of the past and present into the composition cycle, I explore the continuing relevancy and complexity of Spinoza's Enlightenment project and its relationship to statehood and belonging. While Spinoza dealt with problems of persecution, immigration, assimilation and tradition in a society dominated by Calvinist thought, these very issues become creatively engaged in the Ethics composition cycle, as the work integrates, via musical material and form, Jewish concepts of nature and the divine with Spinoza's philosophy of the mind. I will discuss how the composition deals with these issues and how these relate to historical and contemporary questions of immigration and belonging.



**Dániel Péter Biró** is Professor for Composition at the Grieg Academy, University of Bergen. He studied in the U.S., Hungary, Germany, Switzerland, Austria and Israel before receiving his Ph.D. from Princeton University in 2004. From 2004 -2009 he was Assistant Professor and from 2009-2018 Associate Professor for Composition and Music Theory at the University of Victoria in Victoria, BC, Canada. In 2010 he received the Gigahertz Production Prize from the ZKM-Center for Art and Media. In 2011 he was Visiting Professor at Utrecht University and in 2014-2015 Research Fellow at the Radcliffe Institute for Advanced Study, Harvard University. In 2015 he was elected to the College of New Scholars, Scientists and Artists of the Royal Society of Canada. In 2017 he was awarded a Guggenheim Fellowship. Dániel Péter Biró has been commissioned by prominent musicians, ensembles and festivals and his compositions are performed around the world. Website: [www.danielpeterbiro.no](http://www.danielpeterbiro.no)

**11:00: Prof. Gunnar Hindrichs, Philosophisches Seminar, University of Basel**  
***“Spinoza Between Philosophical Therapy and Construction”***



In contemporary philosophy, there is a much discussed distinction between therapeutic and systematic philosophy. Whereas the first dissolves conceptual perplexities, the second constructs an image of the world. In my presentation, I argue that Spinoza's philosophy is therapeutic and systematic at once, and that it connects the two approaches through the idea of an intuitive knowledge of the whole.

Gunnar Hindrichs is Professor of Philosophy at the University of Basel. Previously, he held positions at the University of Heidelberg and the University of Pennsylvania. Hindrichs has issued four monographs: *Negatives Selbstbewusstsein* (2002), *Das Absolute und das Subjekt* (2008), *Die Autonomie des Klangs* (2014), and *Philosophie der Revolution* (2017). A collection of his essays on Critical Theory appeared as *Zur kritischen Theorie* (2020).

**11:30: Round Table discussion: “Spinoza and the Dimensions of Thought”**  
**Discussion with Prof. Dániel Péter Biró, Grieg Academy, UiB, Prof. Alexander van der Haven, Department of Archaeology, History, Cultural Studies and Religion, UiB, Prof. Gunnar Hindrichs, Philosophisches Seminar, University of Basel, Assoc. Prof. Vibeke Andrea Tellmann, Department of Philosophy, Dr. Grit Schwarzkopf, University of Heidelberg**



Vibeke Andrea Tellmann is an Associate Professor at University of Bergen, Department of Philosophy. Her research deals with questions of music and language and she has published papers on Wackenroders, Tiecks, Derrida and Heidegger as well as music and aesthetics.



Dr. Grit Schwarzkopf has been Project manager in the Anthropology and Ethics research network at Heidelberg University (Excellence Initiative II). She was a visiting lecturer for German literature at the University of Pennsylvania and scientific coordinator and junior research group leader in the research group Ethical and Legal Aspects of Total Sequencing of the Human Genome (EURAT) at the University of Heidelberg, in cooperation with the DKFZ, the Max Planck Institute for Comparative Public Law and International Law, the EMBL Heidelberg and the University of Hanover. Her current work investigates relationships between philosophy and physics in regards to questions of intellect (Geist).



### **Lunch break (12:00 – 13:00)**

**Afternoon Session: Room 206, Grieg Academy (from 13:00 to 16:00)**

**13:00: «*Dimensions of Sound Art*» Round Table discussion with Prof. Trond Lossius, The Norwegian Film School, The Grieg Academy and Prof. Örjan Sandred, University of Manitoba  
Karen Werner, PhD Candidate, Department of Art, University of Bergen, Moderator.**



Karen Werner is a sociologist and radio artist based in Bergen, Norway, where she is an artistic research PhD fellow at KMD in Bergen. Werner has produced award-winning radio features for numerous national and community radio stations and has also created public sound installations and live radio performances. Her work has been supported by the Kone Foundation, Memorial Foundation for Jewish Culture, Museums Quartier Wien, Tonspure Kunstvereine Wien, Bergen Kommune, Hemera Foundation and others. Werner was the Inaugural Radio Artist Fellow at Wave Farm from 2019-2020 and is the founder of the experimental and community radio station Radio Multe 93.8fm in Bergen, Norway.

### **Coffee break (13:45-14:00)**

## SESSION 5: On Musical Movement and Artistic Secrets (14:00-16:00)

**Moderator: Sergej Tchirkov, PhD Candidate, Grieg Academy, University of Bergen**

**14:00: Maria Mjaaland Sele, PhD, University of Southampton**

***“Music; a Moving Concept”***

Eduard Hanslick suggests that motion is an important and fruitful concept when talking about musical aesthetics. I will suggest that Hanslick was hinting at not only a significance in music but a unique ability which could stand as a principle of what he called the particularly musically beautiful. It should come as no surprise that music is intimately connected to motion, seeing as music is not static but rather a dynamic experience. However, music does not only harbour the potential of physical motion, but more importantly is contains the ability to move the soul.

**Maria Mjaaland Sele** studied at the University of Southampton, where she completed her Bachelor, Master and Doctoral degree in philosophy. Her research is within the field of philosophy of music and aesthetics, with a particular focus on aesthetic value, expression theory and aspects of understanding. Specialising in philosophers such as Eduard Hanslick, R.G Collingwood, Wittgenstein and Aristotle. Current research interests: The value of Philosophy of music across disciplines, the gap between theory and practice, mental motion, and the powers of music and the mind. She grew up in rural Norway and her love for ballet, classical music and song led her to pursue her career. She resides in Stavanger, Norway with her husband.



**14:30: Discussion: “Hanslick and Musical Autonomy.” Round table with Prof. Gunnar Hindrichs, Philosophisches Seminar, University of Basel, Maria Mjaaland Sele, PhD, University of Southampton, Prof. Dániel Péter Biró, Grieg Academy, UiB, Prof. Arnulf Mattes, Grieg Academy, UiB.**



**Arnulf Christian Mattes** is Associated Professor (historical musicology) at the University Bergen and since 2015 leader of the Grieg Research Centre. Mattes received his PhD at the University of Oslo with a dissertation on Schoenberg’s chamber music written in American exile. Since then, he has received research grants from the Norwegian Research Council (NFR) for projects on musicians in emigration and musical modernism in Norway. Mattes’ published on Nordic music in journals such as *Archiv für Musikwissenschaft* and *History of Humanities*. Recently, he co-edited together with Michael Custodis the anthology ‘The Nordic Ingredient’ (Waxmann, 2019), and contributed with a chapter on Grieg’s centennial in 1943 to ‘The Routledge Handbook to Music under German Occupation’, ed. by David Fanning and Erik Levi (2019). Serving for many years as editor of the Norwegian Journal of Musicology, he has been appointed for the

term 2022–27 as member of the new editorial team of *Acta Musicologica*, the journal of the International Musicological Society.

**15:00: Assoc. Prof. Marianthi Papalexandri-Alexandri, Cornell University, Department of Music and Prof. Sophia Efstathiou, Senior Researcher, Department of Philosophy and Religious Studies, Norwegian University of Science and Technology.**  
***“Sounding Secrets”***

Sounding Secrets considers the spoken and unspoken, the shared and private, the conscious and improvised. Can you share your secret in the form of sound?

This talk shares some of our discoveries in the workshop series Facing Sound, a collaboration between sound and philosophy based on an account of ethics as experience - as the experience of facing a radically different Other (Levinas 1969; Efstathiou 2019). In the series of exercises we call Sounding Secrets, students were asked to ‘share’ one of their secrets as sound, giving shape to an improvised composition (selection of materials, etc.), performed in two different modes, with different sensory input blocked (behind a screen, or with a mask). Students explored the concept of privacy sonically, engaging emotionally with the possibility of someone discovering their secret, as well as with expressing their secret through sound, while acknowledging the uniqueness of all these secrets. The improvisational pieces created trained students in reflecting on and sonifying their experiences, emotions, and concepts.



**Papalexandri-Alexandri** (b.1974) is a sound artist and composer, based in the United States and Switzerland. Interweaving the borderlines between sound and visual objects, Papalexandri creates works of simplicity, elegance, and personal charisma. She is particularly interested in the properties of resonant surfaces and friction, as well as how physical materials can be arranged to behave in a life-like manner. Papalexandri holds a Ph.D. in Music Composition from the University of California, San Diego, and is a Professor of Music at Cornell University.

Papalexandri’s sculptural installations and compositions have been presented internationally at institutions such as the Martin Gropius Bau in Berlin; Kunstmuseum Basel; MuDA Museum of Digital Art in Zurich; Ashmolean Museum in Oxford; Museum of Musical Instruments in Berlin; ISEA, Hong Kong; Tokyo Art Fair; Japan Art Media; Art Taipei; Gallery Denise Rene in Paris; Mazzoli Gallery in Berlin; Anhava Gallery in Helsinki; Standing Pine Gallery in Nagoya; ARCO Madrid; Kunstmuseum Stuttgart; Kunsthal Aarhus Biennale Disegno in Rimini; the Swiss Federal Institute of Technology in Lausanne; Donaueschingen Musiktage/Museum Art.Plus, Germany; the Herbert F. Johnson Museum of Art, Ithaca, USA; the Venezia Servizi, Palazzo Contarini del Bovolo, Venice and the Venice Biennale of Architecture. Papalexandri’s work is represented in private collections as well as the EMMA, Finland’s Espoo Museum of Modern Art.

**Sophia Efstathiou** is a Senior Researcher in the Programme for Applied Ethics, at the Norwegian University of Science and Technology (NTNU). Efstathiou works in history and philosophy of science, ethics of technology and art-based approaches to philosophy and responsible research and innovation. She is currently the PI of the four-year Norwegian Research Council project [MEATigation: Towards sustainable meat-use in Norwegian food practices for climate mitigation](#) - a collaboration across the Social Sciences, Humanities and Arts and Norwegian business and cultural actors aiming to explore and transform Norwegian food practices towards reducing meat use. Efstathiou is also leading part of the three-year HORIZON2020 project [ISEED](#):





[Inclusive Science and European Democracies](#) which looks to citizen science to learn how to engage people in knowledge-based democratic deliberation in Europe. Efstathiou holds a Master of Physics in Mathematics and Physics (Warwick, 2000), an MA in Philosophy (2006) and PhD in Philosophy and Science Studies from the University of California, San Diego (2009). Her research has received EU, RCN, NSF, Max Planck and White funding.

**16:00: Snacks and cocktails: Nedre Nygaard, Nygårdsgaten 31, 5006 Bergen**

**Dimensions 3 – Concert in cooperation with NyMusikk Bergen:  
Norwegian premiere of ETHICA by Dániel Péter Biró Johanneskirken,  
Sydnesplassen 5, 5007 Bergen,  
25 February, 19:00h**

*Nulla Res Singularis (2017-2021)*

for five voices and five string instruments

(Norwegian Premiere)

Lecture: “Spinoza’s Immigration and the Question of Freedom.”

Dániel Péter Biró, Professor for Composition, Grieg Academy, University of Bergen

*Scholium II (2018 – 2022)*

for five voices and five string instruments

(Norwegian Premiere)



## SCHOLA HEIDELBERG

Soprano	Sarah M. Newman
Soprano	Peyee Chen
Alto	Barbara Ostertag
Baritone	Luciano Lodi
Bass	Martin Backhaus
ensemble aisthesis	
Violin	Moritz Ter-Nedden
Violin	Jacobo Hernández Enríquez
Viola	Kirstin Maria Pientka
Violoncello	Jessica Kuhn
Violoncello	Ralph Krause
Ensemble	Ekkehard Windrich
Coaching	
Conductor	Walter Nußbaum

*Nulla Res Singularis* was commissioned by the Klangforum Heidelberg and written for the Schola Heidelberg and the Ensemble Aisthesis. The composition is based on a text of Baruch Spinoza (1632-1677). The initial conceptual framework for this composition cycle began when I was visiting professor in the computing and information sciences department of Netherland's Utrecht University in 2011. Working with researchers on a Government project about oral cultures in the Netherlands, I traveled the country to record and analyze the multitude of Jewish and Islamic recitation practices. In this time, nationalist elements in the Netherlands started to emerge and to affect both my research and the individual subjects of my research. In order to understand the larger historical context of contemporary political situations, I started to investigate the complex

history of state oppression and free speech in the Netherlands and to consider how this stands in dialogue with the globalized political problems of today.

In The Hague, I lived not far from Spinoza's burial site and place of residence. While one of the greatest philosophers of the 17th century, Spinoza was banned from the Portuguese Synagogue in Amsterdam because of his views on God and nature, which proved to be too radical for the time. In his philosophical treatise *Ethics*, Spinoza attempted to present a new type of theology, one that was autonomous from organized religion, such as that of his own Portuguese Jewish community. As Spinoza could not publish his *Ethics* in his lifetime, and as he was not able to take part in Jewish life, he was forced to live a life "outside" of the official culture of his time. He went into inner exile.

In the composition *Nulla Res Singularis*, each singer presents specific sections of the text in a manner wherein the text struggles to be expressed and understood. In the course of the work the string instruments, present a parallel world to that of the singers, one that eventually starts to "speak," taking over the phonetic elements of the voices, to create an "exiled language" of absolute music. Simultaneously, Torah text and recitation is presented as a reoccurring cantus firmus, its sonority based on Jewish recitation practices from Spinoza's own Portuguese synagogue in Amsterdam from which he was banished. This ancient text and chant, recalling a cherished ground of spiritual enlightenment, also presents the world from which the other material and thought both derives and is exiled from. In this way, I pay tribute to Spinoza's situation of creation and look to him for answers for contemporary predicaments of state oppression and free speech. Even if he was not able to publish his work in his lifetime, Spinoza's depth of thought still gives us hope and consolation in our own time of political oppression.



# וַיֵּרָא וַיֹּאמֶר מֶה-נֹרָא הַמָּקוֹם הַזֶּה אֵין זֶה כִּי אִם-בֵּית אֱלֹהִים וְזֶה שַׁעַר הַשָּׁמַיִם

The composition *Scholium 2* deals with texts from the second book of Spinoza's Ethics "On the Origin and Nature of the Mind." In writing this composition, I have translated Spinoza's philosophical ideas about the various types of cognition into musical material and form. Thereby, spoken, sung and instrumental forces stand in dialogue with one-another to present layers of musical meaning within the multi-movement form. While Spinoza's ideas about knowledge from random experience are presented first as purely instrumental, absolute music and then presented with sung texts, his ideas about knowledge from opinion or imagination, reason, God and the formal essence of things is presented in both Latin and Hebrew translation, with the string parts existing as a secondary, interpretive and phonetic layer to the philosophical text. The melodic material for the composition derives from cantus firmi based on the Torah cantillation melodies of Spinoza's own Portuguese synagogue as well as from Portuguese plainchant from the time of the expulsion. These melodies are also heard in their original form, alongside the Torah text of "Ehyeh asher ehyeh" and the plainchant text equivalent "ego sum qui sum" (oftentimes translated as "I will be what I will be") pointing to both the past, present and future in theological, philosophical and historical contexts. In the course of the cycle, these melodies become "secularized" and the microtonal framework reveals a harmonic framework that, while relating to the historical musical material of the chants, sets out to form new relationships between dissonance and consonance based on polarity. In this way, the composition cycle exists as a dialogue between the historical and contemporary reading and musical translation of this text.

I am grateful to Walter Nußbaum, Ekkehard Windrich, Dominique Mayr and members of the Schola Heidelberg and ensemble aesthesis for their cooperation and engagement in the creation of this composition cycle.

*Scholium II* is dedicated to Gunnar Hindrichs.



**Dániel Péter Biró, SCHOLIUM II. (Propositions I.-XI.)**

Text: Baruch de Spinoza, *Ethica*, Book 2: *On the Origin and Nature of the Mind*.

I. Ex Omnibus

**SCHOLIUM II.**

Ex omnibus supra dictis clare apparet, nos multa percipere et  
notiones universales formare:

*Comment 2.*

From all that has been said above it is clear, that we, in  
many cases, perceive and form our general notions:

**Dániel Péter Biró, Nulla Res Singularis**

Text: Baruch de Spinoza, *Ethica*, Part IV: Of Human Bondage

Nulla res singularis in rerum natura datur, qua potentior et  
fortior non detur alia. Sed quacumque data datur alia  
potentior, a qua illa data potest destrui.

There is no individual thing in nature, than which there is  
not another more powerful and strong. Whatsoever thing  
be given, there is something stronger whereby it can be  
destroyed.

Genesis 28:17: vayira vayomar ma nora  
hamakom ha- ze: e:n ze: ki im sha'ar  
hashamayim

Frightened he said 'How awesome is this place. This is  
none other than the house of G'd and this is the gate to  
heaven.'

II. Experientia Vaga

1. Ex singularibus nobis per sensus mutilate, confuse et sine  
ordine ad intellectum repraesentatis (vide coroll. prop. 29.  
huius); et ideo tales perceptiones cognitionem ab experientia  
vaga vocare consuevi.

1. From particular things represented to our intellect  
fragmentarily, confusedly, and without order through our  
senses: I have settled to call such perceptions by the name  
of knowledge from the mere suggestions of experience.

III. Ex Singularibus

2. Ex signis, ex. gr. ex eo, quod auditis aut lectis quibusdam  
verbis rerum recordemur, et earum quasdam ideas  
formemus similes iis, per quas res imaginamur. (vide schol.  
prop. 18. huius). Utrumque hunc res contemplandi  
modum cognitionem primi generis, opinionem, vel  
imaginationem in posterum vocabo.

2. From symbols, e.g., from the fact of having read or  
heard certain words, we remember things and form  
certain ideas concerning them, similar to those through  
which we imagine things. (see scholium to proposition  
18 of this section). I shall call both these ways of  
regarding things knowledge of the first kind, opinion, or  
imagination.

IV. Excursio I: Ego sum qui sum  
[Gregorian Antiphon, Exodus 3,14; Psalm 1,2]

Ego sum qui sum, et consilium meum non est cum impiis; sed in lege Domini voluntas mea est.	I am who I am, and my counsel is not with the wicked, but my will is in the law of the Lord.
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V. Ex Signis (Text highly fragmented)

2. Ex signis, ex. gr. ex eo, quod auditis aut lectis quibusdam verbis rerum recordemur, et earum quasdam ideas formemus similes iis, per quas res imaginamur.	2. From symbols, e.g., from the fact of having read or heard certain words, we remember things and form certain ideas concerning them, similar to those through which we imagine things.
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VI. Vayomer

vayomer elohim el moshe ehey asher ehey vayomer kotomar livne: israel ehey shlakchani alechem	And God said to Moses, “I am who I am. This is what you are to say to the Israelites: ‘I am has sent me to you’
---	--

VII. Vayomer

vajomer elohim el moshe ehey ascher] [ehey vajomer kotomar livne: israel ehiye schlachani alechem]	And God said to Moses, “I am who I am. This is what you are to say to the Israelites: ‘I am has sent me to you’
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## IIX. Deus Sive Natura

3. Denique ex eo, quod notiones communes rerumque proprietatum ideas adaequatas habemus. (vide coroll. prop. 38. et 39. cum ejus coroll. et prop. 40. huius); atque hunc rationem, et secundi generis cognitionem vocabo.

3. From the fact that we have notions common to all men, and adequate ideas of the properties of things (see Corollary to Propositions 38 and 39 with Corollary und Proposition 40 of this section); this I call reason and knowledge of the second kind.

Praeter haec duo cognitionis genera datur, ut in sequentibus ostendam, aliud tertium, quod scientiam intuitivam vocabimus. Atque hoc cognoscendi genus procedit ab adaequata idea essentiae formalis quorundam Dei attributorum ad adaequatam cognitionem essentiae rerum.

[4.] Besides these two kinds of knowledge, there is, as I will hereafter show, a third kind of knowledge, which we will call intuition. This kind of knowledge proceeds from an adequate idea of the absolute essence of certain attributes of God to the adequate knowledge of the essence of things.

## IX. Haec Omnia Unius

Haec omnia unius rei exemplo explicabo.

I will illustrate all three kinds of knowledge by a single example.

## X. Non dubitant mercatores (instrumental)

Non dubitant mercatores secundum in tertium ducere et productum per primum dividere;

Tradesmen without hesitation multiply the second by the third, and divide the product by the first

## X. Sokharim (Hebrew)

Non dubitant mercatores secundum in tertium ducere et productum per primum divider

Tradesmen without hesitation multiply the second by the third, and divide the product by the first

## XI. At in numeris simplicissimis

Dantur exempli gratia tres numeri ad quartum obtinendum, qui sit ad tertium, ut secundus ad primum.

At in numeris simplicissimis ... quartum numerum proportionalem esse .... atque hoc multo clarius, quia ex ipsa ratione obtinendum, qui sit ad tertium, ut secundus ad primum.

At in numeris simplicissimis nihil horum opus est. Ex. gr. datis numeris 1, 2, 3 nemo non videt, quartum numerum proportionalem esse 6, atque hoc multo clarius, quia ex ipsa ratione, quam primum ad secundum habere uno intuitu videmus, ipsum quartum concludimus.

But with very simple numbers there is no need of this. For instance, one, two, three, being given, everyone can see that the fourth proportional is six; and this is much clearer, because we infer the fourth number from an intuitive grasping of the ratio, which the first bears to the second.

Because they have often made trial of it with simple numbers.

But with very simple numbers there is no need of this. For instance, one, two, three, being given, everyone can see that the fourth proportional is six; and this is much clearer, because we infer the fourth number from an intuitive grasping of the ratio, which the first bears to the second.



## About the project Sounding Philosophy

The project Sounding Philosophy, funded by the Norwegian Artistic Research Program (2021-2024), integrates the fields of music composition, philosophy and science to understand how theories of reason and the mind can be approached from creative, metaphysical and scientific perspectives.

This project builds on research-creation initiated by a Guggenheim Fellowship in 2017-2018, presentations at the annual interdisciplinary conference of the Swiss Philosophical Society in September 2018 and discussions undertaken in the context of the Grieg Academy Composition Research Group in 2018-2021.

Supported by: Department of Art Music and Design, University of Bergen, nyMusikk Bergen, Bergen Kommune, Musikkfondene, the Goethe Institute, the Barr Ferree Fund of Princeton University, Global Challenges Program, University of Bergen, Meltzerfondet, the Canada Council for the Arts, Norsk Komponistforening.

Many thanks to the following: Randi Rolvsjord, Head of Department, Grieg Academy, Jostein Gundersen, Vice-Dean of Research, KMD, Dominique Mayr, Paul Weber, Thomas de Ridder, Kjerstin Tønseth, Anne-Len Aase Thoresen, Davide Bertolini, Arthur Pierre Antoine Hureau-Parreira, Olav Tveitane, Bjarte Bjørkum, Anette Andersen, Erik Håkon Halvorsen and the members of NyMusikk Bergen, Francisco Corthey, Emiliano Orbe, Mathias Saue Røyrvik. Special thanks also to Aistė Žumbakytė.



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