

H K B

Hochschule der Künste Bern
Haute école des arts de Berne
Bern Academy of the Arts

**MUSEUM FÜR
MUSIKAUTOMATEN
SEEWEN SO**

Sammlung Dr. h.c.
Heinrich Weiss-Stauffacher

 **Stanford University**


FASZINATIONPIANOLA

2nd Global Piano Roll Meeting

Bern/Seewen (CH)

17–20 June 2022



Program

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Friday, 17 June 2022

Konservatorium Bern, Grosser Saal, Kramgasse 36

19:30 Welcome (Thomas Gartmann/Bern, a. o.) and Opening Concert
Rex Lawson

Saturday, 18 June 2022

Hochschule der Künste Bern, Grosser Konzertsaal, Papiermühlestr. 13d

8:15 *Registration*

9:00 Welcome and Introduction
Martin Skamletz (Bern), Sebastian Bausch (Bern), Marc Widuch (Munich), Kumaran Arul (Stanford)

Session 1: Player Piano, Jazz and Popular Music

9:20 **Rex Lawson (London)**
Building Bridges: The Player Piano in the 21st Century

9:40 **Paul Johnson (El Dorado Hills)**
Hot Performances from "Cool" Catalogues

10:00 Discussion

10:15 *Tea Break*

Session 2: Collections and Roll History

10:40 **Jerry McBride (Stanford)**
Roll Lending Libraries in the Early Twentieth Century

11:00 **Joyce Tang (Brentford)**
The Roll Library at the Musical Museum Brentford, UK

11:20 **Julian Dyer (Wokingham)**
Broadwood Player Pianos and the Ampico in London

11:40 **Thomas Synofzik (Zwickau)**
On the Hupfeld YouTube project "Klavierspielen von Geisterhand" (Piano Playing by Ghostly Hands). Experiences and Evaluations

12:00 Discussion

12:20 *Lunch*

Session 3: Performance Practice

- 13:40 **Neal Peres Da Costa (Sydney)**
Rolls and Performance Practice Research
- 14:00 **Adriano Giardina (Fribourg)**
A Stylistic Pluralism. The Performance of Mozart's Piano Music in the Early Twentieth Century
- 14:20 **Akiko Washino (Fukuoka)**
Analyzing Piano Rolls and Acoustic Recordings of Chopin's op. 15 no. 2 in Order to Investigate How Tempo Rubato Was Applied by Performers Born in the Nineteenth Century
- 14:40 Discussion
- 15:00 *Tea Break*

Session 4: Hungarian Pianism on rolls

- 15:20 **Camilla Köhnken (Ghent)**
Weiss Plays Brahms
- 15:40 **Ferenc János Szabó (Budapest)**
Ernö (Ernst von) Dohnányi. Rollography and Discography
- 16:00 **László Stachó (Budapest)**
Dohnányi's Performing Style. An Introduction to its Empirical Analysis
- 16:20 Discussion
- 16:40 **Artis Wodehouse (New York)**
Expression and the Player Piano

Break

Performer-Researcher's Lounge 1

- 19:15 **Antonio Simón (Málaga)**
Liszt's Approach to Pedalling. What Can Be Inferred from his Students' Roll Recordings
- 19:35 **Laura Granero (Vienna)**
Fanny Davies on Piano Roll: Two Case Studies
- 20:00 **Concert:**
Inja Stanovic, Laura Granero,
Camilla Köhnken, Sebastian Bausch

Sunday, 19 June 2022

Hochschule der Künste Bern, Grosser Konzertsaal, Papiermühlestr. 13d

Session 5: Roll Scanning, Digitization and Archiving

- 9:00 **Peter Phillips (Sydney)**
Digitizing Piano Rolls: History, Reasons and Accessibility
- 9:20 **Peter Broadwell/Kumaran Arul/Nathan Coy (Stanford)**
Pianolatron – A Virtual Roll Player for Digitized Rolls
- 9:40 **Julie Porter (Martinez)**
Visualizing Music by Rendering with the Postscript Printer Page Description Language
- 10:00 Discussion
- 10:20 **Marcel Veel/Koos van Kruistum (Leiden)**
Give the Player Piano and the Reproducing Piano a Future?
- 10:40 **Timothy A. Baxter (Atlanta)**
Copying Original Rolls in the 21st Century. Recreating the Roll's Original Punch Matrix to Create an Accurate Master Roll File for Preservation and Perforation
- 11:00 Discussion
- 11.15 *Tea Break*

Session 6: Special/Local Repertoire

- 11:35 **Inja Stanovic (London)**
The Musical Museum's Hidden Treasures: Duo-Art Audiographic Rolls
- 11:55 **Pietro Zappalà (Pavia)**
The Italian F.I.R.S.T. Company and its Catalogue. Analysis and Discoveries
- 12:15 **Darius Kučinskis (Kaunas)**
Ethnic Piano Rolls. Between "Foreign", Folk and National
- 12:35 Discussion
- 12:50 *Lunch*

- 14:00 **Daniel Heil (Brackenheim)/Marc Widuch (München)**
Rediscover of Lost Reproducing Rolls of the Welte, Hupfeld, Philipps Repertoire
- 14:20 **Jordi Roquer/Àngel Monasterio/Joaquín Ródenas (Barcelona)**
The Spanish Industry of the Pianola. A First Historical Approach
- 14:40 **Esther Burgos-Bordonau (Madrid)**
The “Hazen Hosseschrueders” Piano Roll Collection. An Approach to its Study
- 15:00 Discussion
- 15:15 *Tea Break*

Session 7: Interpretation Research

- 15:40 **Carolina Estrada Bascuñana (Bern)**
When the Digital Era Meets the Piano Roll. Decoding the Recordings of Twentieth-Century Classical Composers Performing Their Own Works
- 16:00 **Lourdes Rebollo (Valencia)**
Common Trends of Interpretation Between Alicia de Larrocha (Pupil) and Frank Marshall (Teacher) in Their Recordings of “El Puerto” (from *Iberia*) by Albéniz
- 16:20 **Heike Fricke (Leipzig)**
Digitizing Piano Rolls. Views and Perspectives for Interpretation Research
- 16:40 Discussion

Break

Performer-Researcher’s Lounge 2

- 19:15 **Manuel Bärtsch (Bern)**
Riemann’s Shadow? The Performative Analysis of Beethoven’s Piano Music Around 1900
- 19:35 **Nicholas Williams (Perth)**
Arthur Friedheim: A Case-Study in the Marketing of Piano Rolls
- 20:00 **Concert:**
**Nicholas Williams, Antonio Simón,
Manuel Bärtsch, Neal Peres Da Costa**

Monday, 20 June 2022

Museum für Musikautomaten, Bollhübel 1, 4206 Seewen

8:30 Departure for Seewen (Meeting Point: Papiermühlestr. 13a)

9:45 Arrival at Seewen

Session 8: Welte

10:00 **Christoph E. Hänggi (Seewen)/Sebastian Bausch (Bern)**
The “Britannic”-Organ and the Master-Rolls for the Welte Philharmonie Organ

10:25 **Jörg Holzmann (Bern/Salzburg)**
From “Sturdy Wunderkind” to “Distinctive Accompanist”. Tracing Paula Hegner on Welte, Hupfeld and HMV

10:45 Discussion

10:55 *Tea Break*

11:20 **Gerhard Dangel (Freiburg i. Br.)**
Welte Employees and Roll Editors

11:40 **Hermann Gottschewski (Tokyo)**
Towards an Artistic Performance of Piano Rolls. Using Welte-Mignon-Roll No. 548 (Raoul Pugno Plays Chopin’s Nocturne op. 15,2)

12:00 Discussion

12:15 *Lunch (Group A) – Museum Tour (Group B)*

13:15 *Lunch (Group B) – Museum Tour (Group A)*

Session 9: Restoring instruments

- 14:15 **Grace Chan (Sydney)/Chris Pickford (London)/Daniel Yeadon (Sydney)/Neal Peres Da Costa (Sydney)**
Carillon Pianola Rolls and the Evolution of Automated Public Music
- 14:35 **Kai Köpp (Bern)**
Historically Informed Restoration. An Archeology of Sound Color
- 14:55 **Joshua Rapier (Los Angeles)**
Reproducing Piano Rebuilding and Regulation: Conditions for Optimal Playback
- 15:15 Discussion
- 15:30 *Tea Break*
- 16:00 **Denis Hall (London)**
Perforated Testimonials. Did They Really Play Like That?
- 16:20 Discussion
- 16:30 **Roundtable**, Closing Discussion
- 17:30 End of the 2nd Global Piano Roll Meeting

Abstracts

Rex Lawson (London)

Building Bridges: The Player Piano in the 21st Century

The musicological world has little or no experience of the player piano, and the world of the player piano is equally ignorant of musicology. This chasm has existed for many decades, and it is truly wonderful to perceive how a new dawn is in the process of rising, under whose light a younger generation is trying to move to a better understanding of this long-neglected subject. However, in our attempts to build bridges between the two disciplines, we need to make very sure that we dig our foundations into solid ground. Failure to do this will result in the whole subject becoming a mere collection of fairy-tales, which is neither respectful to the past nor helpful to the present. In particular we need to remember that neither printed books nor audio recordings describing or representing the player piano have been subjected to peer review in any meaningful way. After all, there are almost no knowledgeable peers to do the reviewing, and that certainly includes those who manage academic publishing houses. How then should we proceed, without the usual rules to guide us? Rex Lawson will discuss these topics and make suggestions for the future, so that the reproducing piano and the foot-pedaled player piano can take their rightful places in our modern world. In addition, he will present two particular elements of his current research, both of which have been widely misunderstood for many decades, namely Sergei Rachmaninoff's connections with the player piano and the processes of dynamic recording for the various types of reproducing piano, each with live musical illustrations.

Rex Lawson has been involved with player pianos for nearly fifty years. In 1981 he made his international debut on the Pianola, participating in the world premiere of the 1919 version of Stravinsky's *Les Noces*, with Pierre Boulez in Paris. Since then, Rex has taken the Pianola to many countries and renowned orchestras in Europe and North America. He has created his own piano roll label, Perforetur, and founded, along with Denis Hall and other friends, the Pianola Institute (www.pianola.org). Rex's musical activities include various world premieres and around a dozen commercial CDs as well as lecture-recitals on the player piano in academic circles at Oxford, Cambridge, Stanford, Cornell, Berlin, Frankfurt, Basel and Venice, in a variety of languages.

Paul Johnson (El Dorado Hills)

Hot Performances from "Cool" Catalogs

Reproducing roll labels aren't typically considered a nexus of hot recordings (jazz, blues, and ragtime). But, to be fair, reproducing rolls weren't completely devoid of hot performances. This presentation will work to prove that point, surveying the highlights of exciting, popular reproducing roll recordings. Potential artists to be covered include Vee Lawnhurst, Johnny Johnson, Pauline Alpert, Ted Fiorito, Pete Wendling, Henry

Lange, Frank Banta, and Herbert Clair. We'll also compare the three major reproducing roll firms and discuss the "shining lights" in terms of popular performance. We'll also weigh in on which of the three major reproducing roll catalogs had the "hottest" catalog.

Forty years ago, **Paul Johnson** was learning to play ragtime. Almost simultaneously, he started buying piano rolls to understand how ragtime was performed and quickly converted from pianist to pianolist. He is still enjoying and studying rolls today to understand how popular music was arranged and performed 100 years ago. Paul once ran an international roll auction and now uses that experience to assist Stanford in their acquisition of popular rolls. He has also presented about rolls for conferences at Cornell and Stanford and has taught mechanical music for courses at USC, UC Berkeley, Dartmouth and the Scott Joplin Festival.

Jerry McBride (Stanford)

Roll Lending Libraries in the Early Twentieth Century

Player pianos increased in popularity in the homes of many middle-class families from the late nineteenth century to the 1930s, and owners of player pianos developed personal collections of piano rolls. However, it was not always possible to have all of the music you might want to play on the piano in your own roll collection just as you might not have all of the books in your personal library that you might want to read. Some libraries developed circulating piano roll collections to meet this demand for music from the public. This presentation will explore some of the libraries that developed roll collections, what types of rolls they collected, what types of music were represented, and what happened to those collections after the decline of player piano production. The Meyer Collection, now at Stanford University, will serve as a case study of a roll collection from a major United States city library. The questions will be asked: were libraries responding to or shaping the musical tastes of their communities, and what role did they play in musical and cultural life.

Jerry McBride is Emeritus Head Librarian of the Stanford University Music Library and Archive of Recorded where he served from 2003 until his retirement in 2020. The establishment of the Player Piano Program was among his most significant accomplishments at Stanford. He is also the author of *Douglas Moore. A Bio-Bibliography* published in 2011 and the article on Moore in *The Grove Dictionary of American Music*, 2nd edition. In addition, he has written numerous articles on a wide variety of topics in music librarianship, the music of Arnold Schoenberg, and twentieth-century music. Prior to Stanford, he was Music Librarian at Middlebury College 1986–2003 and an archivist at the Arnold Schoenberg Institute in Los Angeles 1979–1986. He served on a variety of committees in the Music Library Association and as its President 2011–2013. He holds degrees from Kent State University in library science and from the University of Wisconsin-Madison and the University of Redlands in clarinet performance.

Joyce Tang (Brentford)

The Roll Library at the Musical Museum Brentford, UK

In recent years, music rolls (piano and organ) have been recognized as important sources in musicological studies. There remains substantial difficulty in locating surviving copies of music rolls despite ongoing efforts by institutions and museums to grow roll collections, to name a few, Stanford University and Bern Academy of the Arts. Furthermore, the majority of known collections cluster in three geographical regions: the United States, Germany and Switzerland, and Australia. The limiting access to rolls outside of these regions could be a factor which impedes scholars to include this rich and fascinating source in their research. In the United Kingdom, roll collections can be found in private hands of distinguished individuals: Rex Lawson, Denis Hall, and Julian Dyer amongst others. Little is known about the Roll Library at The Musical Museum at Brentford, London, the home to over 20,000 music rolls amongst other rare archival specimens relating to self-playing instruments. In this presentation, I will introduce the roll collection at the Musical Museum Brentford by giving an overview of how the collection came to be, and the current range of collectibles, which includes piano and organ rolls by Aeolian, Ampico, Chase & Baker, Meloto, and many more brands. I will draw highlight to some of the unique collections, such as the Frederick Evans and Reg Mander piano rolls. In addition to music rolls, I will give an overview of the rare archives held in the library, such as the Marshall Piano Company archive and the Aeolian factory (Hayes) archive. Through the uncovering of the collection in the Roll library, I demonstrate the great potential for its use in academic research and music-related activities, as well as reveal how these sources can engage with new audiences in the Musical Museum and beyond.

Joyce Tang obtained her PhD in Music from the University of Southampton in 2021, and is currently the Roll Library Manager and Archivist at the Musical Museum Brentford. As well as an academic, Joyce is an accomplished pianist, having been trained at the Royal Academy of Music (Bachelor in Music), and at the University of Oxford (Master in Music). Her interests lie in nineteenth- and twentieth-century pianism, and keyboard organology. Joyce aspires to be an influential scholar, with a focus on the intersection of musicology and performance practice.

Julian Dyer (Wokingham)

Broadwood Player Pianos and the Ampico in London

Ampico is well known but its British business wholly forgotten. Previously-unseen internal paperwork from Marshall and Broadwood piano companies allows its story to be told for the first time, and also reveals unknown details about the operation of Ampico in the USA, the player-piano business more widely and Broadwood's limited success in this new market. *John Broadwood & Sons* were a major piano maker that fitted player actions c.1910–1930. Their offices closed in 1931, the paperwork was retained and is now conserved in a local government archive. *Sir Herbert Marshall* was a piano dealer who built his own factory in 1908 and became sole European agent for the “Angelus” player system and later the “Ampico”. Extensive correspondence with

Marshall survives in the Broadwood archives. The *American Piano Company* wished to increase sales in Europe, and gain prestige by use of the Ampico in famous piano marques. In 1926 “Ampico, Limited (London)” was formed: the ledgers for its launch survive and have recently become available.

My presentation uses this material to look at a wide range of topics including:

- The Broadwood – Marshall – American Piano creation of Ampico (London);
- The Broadwood pianos sold to player firms, including Aeolian (1905–7) and Ampico (1925–30);
- How Broadwood failed to break into the American market even with American Piano support.
- Costs to makers of player actions;
- The rigid control by American Piano of installation of the Ampico;
- The Broadwood piano-roll lending-library.

Julian Dyer obtained a player piano at the age of 7, and has been hooked ever since. A degree in Physics led to over 30 years working in computing in the electricity industry. He was editor of the bulletin of the Player Piano Group for 17 years. He now specializes in roll scanning, roll-manufacturing, restores player pianos and researches player and roll history.

Thomas Synofzik (Zwickau)

On the Hupfeld YouTube Project “Klavierspielen von Geisterhand” (Piano Playing by Ghostly Hands). Experiences and Evaluations

In the winter of 2020/2021, as part of a special exhibition at the Robert Schumann House in Zwickau, 76 Hupfeld artist rolls (from the range No. 12007 to 16709) were recorded on a Grotrian Steinweg grand piano from 1920 with treadles. In this way, roll recordings, e.g. of Carl Reinecke (1824–1910), Francis Planté (1839–1934), Sophie Menter (1846–1918), Xaver Schwarwenka (1850–1924), Alfred Grünfeld (1852–1924), Raoul Pugno (1852–1914), Teresa Carreno (1853–1917), Conrad Ansorge (1862–1930), Arthur Friedheim (1859–1932), Emil von Sauer (1862–1942), Conrad Ansorge (1862–1930), Alfred Reisenauer (1863–1907), Harold Bauer (1873–1951), Eugène d’Albert (1864–1932), Max Pauer (1866–1945), Ferruccio Busoni (1866–1924) and Alfred Cortot (1877–1962), could again be made accessible partly for the first time (see [YouTube playlist](#)). The lecture offers a report on the experience, but also attempts initial evaluations. The recording of Beethoven’s Moonlight Sonata by Harold Bauer was already analyzed by Artur Hartmann in a dissertation in 1932. The two recordings of the Hungarian Rhapsody No. 2 by Alfred Cortot and Arthur Friedheim also offer a highly interesting opportunity for comparison – as not only pianists of two generations, but also of different nationalities are confronted.

Dr **Thomas Synofzik** studied musicology, German language and literature and philosophy at the University of Cologne and historical keyboard instruments at the conservatories in Cologne and Brussels from 1988 onwards, after training in church music at the Musikhochschule Dortmund. From 1998 to 2005 he was a lecturer for harpsichord, basso continuo and musicology at colleges in Dortmund, Essen,

Cologne, Detmold and Trossingen. Since 2005 he has been the director of the Robert Schumann House in Zwickau, where he is also the head of the Schumann Letters Edition (with Michael Heinemann). Monographs: *Briefe und Dokumente im Schumannhaus Bonn-Endenich*, Bonn 1993; *Heinrich Grimm. Studien zu Kompositionstechnik und Überlieferung*, Eisenach 2000; *Robert Schumann – Heinrich Heine. Musik und Ironie*, Köln 2/2010; numerous editions of sheet music (including RSA Bd. VI.9.1/2: R. Schumann, Liederspiele, Mainz 2020).

Neal Peres Da Costa (Sydney)

Rolls and Performance Practice Research

During their heyday in the first three decades of the twentieth century, reproducing piano roll systems offered a golden opportunity to preserve the artistry of famed pianists, and to play back their performances on a normal sounding piano. Indeed, for many important pianists, e.g. Carl Reinecke (b. 1824) and Theodor Leschetizky (b. 1830) reproducing piano rolls provide the only evidence of their playing style. Over the past 20–25 years, research has been undertaken to understand the operational processes of the various systems, the varying methods of capturing pianist's performances, and importantly the performance practice details embedded in the rolls. Analysis of these rolls has revealed a wealth of unnotated expressive practices emanating from the nineteenth century including chordal arpeggiation, manual asynchrony, modifications of rhythm and tempo, ornaments and ornamentation, dynamic nuances, accentuation, and pedalling. Such information has had a direct influence on the practice-based (experimental) creative research outcomes of a various performer-scholars. In this keynote, I will outline this work in terms of methodologies, publications, and recordings, to examine how the performance practice data derived from the rolls has transferred into piano performance, and the implications of this for pianism in the future.

A graduate of the University of Sydney, the Guildhall School of Music and Drama (London), the City University (London) and the University of Leeds (UK), **Neal Peres Da Costa** is a world-renowned performing scholar and educator. He is Professor of Historical Performance within the Historical Performance Division (which he founded and of which he was Chair from 2006–2016) and Program Leader of Postgraduate Research at the Sydney Conservatorium of Music. His monograph *Off the Record. Performing Practices in Romantic Piano Playing* (Oxford University Press) is hailed as a book that "no serious pianist should be without" (Limelight, 2012). Neal has been co-editor for the Bärenreiter Urtext Brahms chamber works and for Beethoven and Eberl Sonatas for violin and piano. Neal has recently received prestigious Australian Research Council (ARC) funding for a three-year Discovery Project (2017–2019).

Adriano Giardina (Fribourg)

A Stylistic Pluralism. The Performance of Mozart's Piano Music in the Early Twentieth Century

Acoustical recordings of piano music were rather few at the beginning of the last century. Mozart was no exception. Until 1925, there were no more than about fifteen recordings largely of short pieces or excerpts, all released as 78 rpm discs. The picture is quite different as far as piano rolls are concerned, both quantitatively and qualitatively. Slightly more than two hundred rolls document performances of Mozart's solo piano works and arranged concertos. Among the pieces from the first category, there are large-scale works such as sonatas, fantasias and variations.

Two performances, preserved on Welte-Mignon rolls, have already been discussed in the literature: the second movement of the *Concerto in D major* K. 537 played by Carl Reinecke in 1905 and the *Fantasia in c minor* K. 475 by Theodor Leschetizky one year later. To put it briefly, these playings reflect a "romantic" pianistic approach.

However, other performances of Mozart's works, also on Welte rolls, suggest more varied practices. In this paper, I will address this aspect through an analysis of excerpts from these recordings. In 1905, Georg Alfred Schumann and Egon Petri (in the *Variations in G major* K. 455 and in the *Rondo in A minor* K. 511 respectively) displayed an unexpected "respectful" attitude towards some aspects of the musical text (repeats, articulation and dynamic marks etc.). The very same Egon Petri, as well as Alexander Goldenweiser in 1910 (second movement of the *Sonata in C major* K. 330), used rubato only sporadically. Fritz von Bose (*Adagio in B minor* K. 540), recorded in 1905, played fast notes with remarkable clarity. Finally, the modest and intimate tone that pianists use today in the cantabile parts of the pieces seems to have been already present in 1909 with Fanny Davies (first movement of the *Sonata in E-flat major* K. 282).

For my analyses I will rely on sound realizations of rolls made by the Bern Academy of the Arts and by Hans Schmitz.

Adriano Giardina is a lecturer at the University of Fribourg (Switzerland). His researches focus mainly on Renaissance polyphony. He defended a doctoral dissertation on the first motet book of Tomás Luis de Victoria. He also conducts the Ensemble La Sestina, a vocal group specializing in sixteenth century and contemporary music. He is currently writing a Habilitationsschrift on the performance history of Mozart's piano music in the first half of the twentieth century.

Akiko Washino (Fukuoka)

Analyzing Piano Rolls and Acoustic Recordings of Chopin's op. 15 no. 2 in Order to Investigate How Tempo Rubato Was Applied by Performers Born in the Nineteenth Century

Though both are true to its translation as "stolen time", there are two distinct types of tempo rubato. While the older type, used until the beginning of the nineteenth century, applies rules for lending and borrowing time within a bar (with the left hand strictly maintaining the tempo while the melody line sings freely), the newer type, used

thereafter, tends to distort the exact tempo across larger phrases (Hudson 1994). This practice is indicative of the type of rhetorical technique that has been inseparably linked to musical performance theory since the Renaissance. Though composers have sporadically attempted to convey this technique through the use of a variety of symbols and words, many nuances that are not notated are audibly apparent in performance recordings from the early twentieth century. In order to understand how tempo rubato was applied, it is therefore necessary to study the primary sources, i.e., the acoustic recordings and piano rolls that recorded the performance itself, rather than rely on the music scores and their subsequent commentaries. The objective of this paper is to analyze recordings and piano rolls of Chopin's Nocturne op.15 no.2 in order to clarify the tendencies of nineteenth century-born performers in terms of how they applied nuances of tempo that were not marked on the score.

The survey encompassed performances by 24 eminent performers, including Camille Saint-Saëns who referred to Chopin's use of tempo rubato as its "true secret" and described it thus: "the accompaniment remains undisturbed while the melody floats capriciously, rushes or retards, sooner or later to find again the support of the accompaniment" (Saint-Saëns 1910). Of the 24 performers, 11 left piano rolls to posterity, while 17 left acoustic recordings, and four left both. These four – Raoul Pugno, Eugen d'Albert, Ferruccio Busoni, and Guiomar Novaes – form the basis of this paper's comparison of performances captured by different recording media. They also feature prominently in a further subsidiary analysis comparing the performances by the aforementioned 24 performers with performances of the same piece by performers born in the twentieth century.

Akiko Washino is a musicologist and pianist, currently teaching as an associate professor at Fukuoka Prefectural University in Japan. Her research interests center around questions concerning eighteenth- and nineteenth-century performance practice. Her PhD dissertation was completed at Osaka University and constituted an analysis of piano-rolls performance and early audio recordings of Chopin's Waltz in A-flat major op. 42. In 2016, she was a visiting scholar at Stanford University and conducted research for her dissertation using the Condon Collection of piano rolls in the Archive of Recorded Sound. She is interested in how nineteenth-century pianists interacted with their scores, and how this relationship has changed over time. Akiko Washino is also a player of modern and historical pianos, and is constantly endeavoring to put her research into practice through her playing.

Camilla Köhnken (Ghent)

Weiss Plays Brahms

Piano rolls and acoustical recordings of the Hungarian pianist Josef Weiss (1864–1945) bear witness to his astounding musical artistry. About his career and life little is known, apart from a blurry succession of scandals and misfortunes, often owed to his complicated personality and also, towards the end of his life, to his persecution by the National Socialists. Up until now, he has mainly been considered for his status as a Liszt student and thus perceived through his Liszt recordings, namely of two Hungar-

ian Rhapsodies and his interpretation of the b minor sonata which resurfaced in 2016. However, among his recordings are also interpretations of pieces by Johannes Brahms which call for closer examination. During his concert career, Weiss often programmed Brahms's music, notably in his concerts in New York 1899–1900, and several contemporary accounts – for instance Alma Mahler-Werfel's – relay the impressive effect he achieved through these performances.

In this presentation, three of Josef Weiss' Brahms recordings – the *Andante* of the Sonata No. 3 in f minor, his two Lied piano transcriptions and a Waltz – will be introduced. They will be analyzed along questions like “Did Liszt's students play pieces Brahms differently than Clara Schumann's students?” or “How do they compare to the performance style of Brahms protegée Etelka Freund?”

Camilla Köhnken grew up in Bonn and studied piano with Pierre-Laurent Aimard (Cologne), Jerome Rose (New York) and Claudio Martínez Mehner (Basel). She has played solo concerts at Carnegie Hall, New York, Teatro La Fenice, Venice, and Palacio de Festivales, Santander.

She is also an enthusiastic chamber musician, for example with her Trio Philon, which was founded in 2011. In 2018 she also completed her doctoral thesis at Bern University on interpretation practices of the Franz Liszt Circle and since November 2019 she has been working as a postdoc at the Orpheus Institute in Ghent, Belgium, in association with Tom Beghin's project “Declassifying the Classics” on Beethoven and his fortepianos.

Ferenc Janós Szabó (Budapest)

Ernő (Ernst von) Dohnányi. Rollography and Discography

Ernő (Ernst von) Dohnányi was an important figure of the history of recording. His playing and conducting was preserved on piano rolls, gramophone discs, LPs, and, since he was the music director of the Hungarian Radio for several years, he made a huge amount of broadcast recordings. Furthermore, in his old age many of his concerts were recorded at the Florida State and Ohio State University and he even made private tape recordings in his home in Tallahassee. As a renowned virtuoso of the early twentieth century, he was extremely important for the piano roll industry. He not only made piano rolls for several companies (Welte, Hupfeld, Ampico), but the American Piano Company (Ampico) also elected him an honorary member, and, in 1923, he even performed his first piano concerto at a concert in Chicago, where the second movement was played on an Ampico player piano.

Although the list of his recordings as a performer has been compiled several times since 1971, including an excellent rollography compiled by János Mácsai in 1994, the first scholarly discography of Dohnányi's recordings was published in 2021, after several years of research. As part of the research, the aforementioned rollography needed to be revised.

In my presentation I will summarize the most important questions of the compilation of Ernő Dohnányi's audio legacy. I will examine Dohnányi's piano rolls in the context of other Hungarian pianists' piano rolls. The analysis of his recorded repertoire can help

us to understand some questions of his career as well. Did the player piano and gramophone companies reckon him as a composer or rather as a pianist who performed works of other composers? What did (or did not) he record on piano rolls and on gramophone or LP discs? What can we learn from his recordings made of the same pieces for player piano and gramophone? And finally, I intend to investigate the differences between the methods for compiling a discography and a rollography.

Ferenc János Szabó, pianist and musicologist, studied piano at the Ferenc Liszt Music Academy (Budapest) and chamber music at Kunstuniversität Graz. He has two doctoral degrees, a DLA as pianist (2012) and a PhD in musicology (2019). As a pianist, he won several prizes at international chamber music competitions. From March 2013, he has been associate professor and vocal coach at the Voice Department of the Ferenc Liszt Music Academy. Since September 2011, he has worked at the Institute for Musicology in Budapest; his research fields are the history of Hungarian sound recordings and performance practice. In 2019 he won the Edison Fellowship of the British Library and the Richard Taylor Bursary of the City of London Phonograph and Gramophone Society. He has recently published an edited volume about the sound recordings of the 34th World Eucharistic Congress (1938, Budapest).

László Stachó (Budapest)

Dohnányi's Performing Style. An Introduction to its Empirical Analysis

My paper has a double aim: first, to outline a potential set of criteria for a comprehensive style analysis of the pianist Ernő (Ernst von) Dohnányi – whose playing was recorded relatively extensively on both piano rolls and acoustic recordings –, and second, to attempt to define several key features of his performing style, proceeding from general features, common with most performers of the era, to more personal and contrasting ones. Among other things, I intend to provide a detailed presentation of a salient feature of Dohnányi's pianism, shared with other performers of the era to a certain extent and first published by this author: the mainly unintentional slowing down at structurally relatively important or surprising moments and, respectively, the speeding up of relatively unimportant or highly predictable moments. Computer-assisted analyses of microtiming patterns of representative recording samples and their comparison with preliminary results of a listening experiment suggest a tight connection of Dohnányi's rubato patterns with structural importance and predictability. Further, I argue that the "ordered", rule-based freedom of his playing shares many key features with Liszt pupils such as Eugen d'Albert (with whom he took lessons). Noteworthy contrastive features of Dohnányi's performance style embrace his specifically tonality-centred attentional strategies, along with a further emblematic aspect of his habit as a performer: the capability of directing the attention simultaneously to the superordinated levels of the musical structure and the most embedded ones, in contrast to overall and ordinary expressive solutions that were usually applied to the musical structure by many celebrated performers of the era. I intend to not only include Dohnányi's piano roll recordings in my analyses, but also to

compare some of his notable early performances, recorded on piano rolls, with his late acoustic recordings to portray the stability of his performing style.

Dr **László Stachó** is a musicologist, psychologist and pianist, Lecturer and Research Fellow at the Liszt Academy of Music (Budapest). His academic activity involves the teaching of chamber music, music theory, and twentieth-century performance practice history, as well as recently introduced subjects in Hungary, such as the psychology of musical performance and *Practice Methodology*, his attention training for musicians. Over the past decade, he has been involved in a countrywide planning of music education curricula in Hungary, including the National Core Curriculum and conservatoire curricula. As a pianist and chamber musician, he has performed in several European countries and the US, and conducts *Practice Methodology* workshops and chamber music coaching sessions at international masterclasses. Further to these, he conducts orchestral coaching sessions, working with his attention training. In 2014 and 2017, he was Visiting Fellow at the Faculty of Music of the University of Cambridge.

Artis Wodehouse (New York)

Expression and the Player Piano

When the player piano first came to market around 1900, it was viewed with suspicion. It was feared that the player piano's mechanization of piano performance would remove the necessary component of a uniquely expressed human rendition. However, despite the fact that the majority of early piano rolls were sourced from printed sheet music and metronomically quantized as perforated into the paper roll, player piano design allowed for molding a personalized and potentially expressive performance. Player pianos at all price points featured hand controls capable of temporal and dynamic variation that the "player pianist" or "pianolist" could manipulate according to personal taste as they foot-pumped in real time. The player piano/piano roll interface offered the appeal of instant technical mastery – no need to spend laborious hours practicing by hand in order to master notes and rhythms – thus accelerating the leap to the end goal of achieving a personalized, expressive rendition. To allay the unease the player piano initially aroused, a number of UK and US music writers entered into the breach, defending the new instrument by touting its educational value and expressive potential. Articles were written, journals established and books were published on the subject of how to "play" the player piano, ranging from general hints to massive tomes containing detailed instructions for how to achieve an expressive rendition via a player piano.

The paper comprises an overview of several significant such books generated during the heyday of the player piano era (1900–1930), and summarizes some commonly shared guidelines put forth for obtaining expressive pianola performance. Authors include Gustav Kobbé, Harry Ellingham, Ernst Newman, Sidney Grew, Reginald Reynolds and William Braid White.

Pianist, harmoniumist, pianolist, MIDI editor and CD producer **Artis Wodehouse** has had a deep involvement with historic piano performance practices and piano rolls. She

realized the best-selling Nonesuch CDs, *Gershwin Plays Gershwin* and *Jelly Roll Morton. The Piano Rolls* that propelled a resurgence of interest in piano rolls, particularly as linked to the use of developing computer technologies. Her essay “Tracing Gershwin’s Piano Rolls” published by Oxford University press remains the current definitive summary of the composer’s work in that medium. Her Stanford doctoral dissertation, *Evidence of Nineteenth-Century Piano Performance Practice Found in Recordings of Chopin’s Nocturne, op. 15 no. 2, Made By Pianists Born Before 1900* was one of the first to deal with performance practice analysis of early phonograph recordings.

Antonio Simón (Málaga)

Liszt’s Approach to Pedalling. What Can Be Inferred from his Students’ Roll Recordings

This presentation aims to clarify where Liszt stands within the far-reaching changes that the aesthetics of pedal usage underwent from its beginnings as an occasional special effect – akin to an organ stop – to its eventual omnipresence in modern piano performance. In our attempt to shed some light on the matter, we will first delve into the evolution of Liszt’s pedal markings throughout his oeuvre. Second, we will try to make sense of them through the analysis of piano-rolls of pianists directly associated with the composer.

Antonio Simón studied in Madrid, Zagreb and Amsterdam, both modern piano and fortepiano. He has been very active as a music scholar, and his doctoral dissertation was recently awarded the Mariano Soriano prize. He also performs and records regularly as a keyboardist with a keen interest in romantic historical performance. He teaches fortepiano and modern piano at Málaga’s Conservatorio Superior.

Laura Granero (Vienna)

Fanny Davies on Piano Roll: Two Case Studies

Fanny Davies was regarded as one of the best pianists in Europe at the turn of the twentieth century, as well as being a “messenger for Schumann and Brahms”. A recording artist for Columbia later in her life, she also recorded a handful of piano rolls for Welte in 1909. Because of her connection to Clara Schumann (with whom she studied between 1883 and 1885) and Johannes Brahms, several contemporary studies have discussed Davies’ performance style with attention to her Columbia recordings. In contrast, researchers have neglected her piano rolls.

In this lecture, I discuss Davies’s performances of two contrasting pieces that she recorded for Welte: a cantabile piece, Felix Mendelssohn’s *Lied ohne Worte* in F Major, op. 85 no. 1, and the virtuosic Toccata in A flat Major, op. 18 no. 4 by Giovanni Sgambati, an Italian composer and Liszt pupil. I will discuss the interpretation strategies she uses for performing such different pieces with regard to melodic freedom, regularity or irregularity in the accompaniment, agogics, rhythm modifications, and pedalling.

Laura Granero is a fortepianist and researcher specializing in nineteenth- and early twentieth-century performance practice. She aims to bring her research to her playing, looking for a more personal and freer way of expressing herself as an artist, as the first recorded pianists did. She graduated from the Schola Cantorum Basiliensis and is pursuing doctoral studies at Vienna University of Music and Performing Arts (mdw) under the direction of Dr Clive Brown. In her dissertation, she aims to analyze Clara Schumann's students' recordings and piano rolls, particularly those of Fanny Davies.

Peter Phillips (Sydney)

Digitizing Piano Rolls: History, Reasons and Accessibility

Piano rolls are often considered to be a form of digital recording. When the digital age became a reality in the 1970s, it opened up ways of transferring the perforations – the digital data – from paper piano rolls to electronic media. Next came the personal computer, and a new wave of mechanical player pianos, which unleashed another means of hearing piano roll recordings via their digitized form. But what of the quality? Was this new digital technology resulting in better reproduction of the roll recordings? My presentation looks briefly at the history and the reasons individuals and companies set about digitizing piano rolls.

One of the outcomes of piano roll digitization is accessibility. The usual form is either a MIDI file or an audio file, and this accessibility has opened a whole new field of research and interest. As a supplier of emulated MIDI files and audio files of reproducing piano rolls I have encountered numerous people seeking specific files for special purposes. Their stories and reasons for seeking particular files form part of my presentation.

A reproducing piano roll can be stored as a MIDI file in two ways: with all perforations stored as equivalent MIDI notes, or in an emulated form in which expression and pedal notes are converted to MIDI data. It is this form that most researchers and interested parties seek, as an emulated MIDI file can be played on a MIDI piano or converted to audio with a virtual MIDI piano. Emulation is therefore an essential part of the digitizing story. My presentation ends with an overview of a program that addresses the many vexing issues associated with emulating the expression of a reproducing piano roll.

Dr **Peter Phillips** specializes in making reproducing piano roll performances accessible by way of MIDI and audio files. He has established a library of 6500 MIDI files covering Ampico, Duo-Art and Welte rolls and has presented talks and recitals via a Disklavier of works from piano rolls at numerous international conferences, among others at Stanford University, Leipzig University and Sydney University. After an apprenticeship as Electrical Fitter at a government-owned munitions factory, he studied Education and graduated in 2017 with a PhD on *Piano Rolls and Contemporary Player Pianos: The Catalogues, Technologies, Archiving and Accessibility*. He published various articles on technical and artistic questions of piano rolls.

Peter Broadwell/Kumaran Arul/Nathan Coy (Stanford)

Pianolatron – A Virtual Roll Player for Digitized Rolls

Stanford University's Player Piano Program was established in 2014 to address preservation and access of piano rolls. It currently houses nearly 20,000 rolls as well as numerous player instruments. Recent efforts have focused on digitizing rolls by scanning which has made high resolution images of these rolls available to users online. In addition, these images have been converted to audio files with expression emulation available for download.

While these steps will allow for online access to scanned rolls, there are shortcomings to this approach. For one, selections made to render the expression emulation are fixed in any given converted file. While these choices are the result of extensive research and fine tuning, they are nonetheless limited as one 'interpretation' of the roll. Second, many roll types have no expression codings as they were meant for real time playback on a pianola by a pianist. MIDI renditions of these rolls sound extremely mechanical and unmusical. In addition, images of the rolls are not readily viewable in synch with the audio transfers.

To address this, Stanford has created a new javascript based web application which is called Pianolatron. It is a virtual roll viewer and player which allows for superior user interaction with rolls for research and playback. Roll images scroll in tandem with audio playback and allow users numerous settings to affect the tempo, dynamics and expression interpretation of the roll. These features can be adjusted prior to playback within the expression emulator for reproducing rolls, or can be added in real time, as a virtual pianola for non-expression rolls. This new tool is a potential model for future roll access online.

Peter Broadwell is a Digital Scholarship Research Developer at the Stanford University Libraries' Center for Interdisciplinary Digital Research, where his work applies machine learning, web-based visualization, and other methods of digital analysis to complex cultural data. He has a Ph.D. in Musicology from the University of California, Los Angeles and an M.S. degree in Computer Science from the University of California, Berkeley. In addition to his work on the Pianolatron player piano web app, he has participated in recent studies involving automatic translation and indexing of folklore collections in multiple languages, deep learning-based analysis of dance choreography from video sources, and multimedia annotation of Japanese Noh theater performances.

Kumaran Arul has performed widely as pianist throughout the United States and abroad to acclaim. Arul is actively involved with research in performance practice specializing in historical recordings. At Stanford University, where he has taught since 2003, he was co-director with George Barth, of *Reactions to the Record* that explored new directions in performance and scholarship. In 2014, he spearheaded a major initiative at Stanford, the *Player Piano Program*, which aims to create an extensive online database of piano rolls. His studies have been at the Manhattan School of Music, the University of Michigan School of Music, and Trinity College, Cambridge.

Nathan Coy is Sound Archives Librarian at the Stanford University Libraries' Archive of Recorded Sound (ARS) where he works to acquire, preserve, and make accessible more than 400,000 sound recordings. He holds degrees in music composition, audio production, and library science and previously spent a decade in applied preservation of sound recordings ranging from cylinders to born digital audio. His transfers have been used for research and in commercial releases of music and in television. Currently his work at ARS includes being part the Stanford Piano Roll team working to preserve and document physical rolls while making piano roll digital surrogates freely available to the public for research, use, and enjoyment.

Julie Porter (Martinez)

Visualizing Music by Rendering with the Postscript Printer Page Description Language

It is well known that music can be represented in a visual form as marks or holes in paper. Postscript is a language optimized for rendering textual data onto the printed page. Postscript can also be used to process and translate abstract musical information from one format to another.

Appliances commonly found in the home or office such as the combination photocopier/printer can be used to create both piano roll masters and musical scores from the same raw data. Data can be represented as acoustical waveforms or as note on and off event data, which at the raw level are known as WAV and MIDI files respectively. This data can be compressed, filtered and processed using well established statistical methods, such as Fourier analysis and Bayesian error corrections. Simple hardware can be used to capture the raw data, for processing. This includes data captured from such items as the 'Arduino' microcontroller teaching environment, the cameras built into cell phones, or if archival quality is not required online web downloads. The pattern detection popularized in medical research and DNA sequencing can be used to find the centers of holes in piano roll scans, or photographs, which can be directly imported into the postscript stack and database structures. This data can also be translated to XML for translation to other applications and databases where it can be printed as a music score, generate new roll masters, or played directly through digital audio.

Practical real world applications of these techniques have been used to convert midi files of piano scans to mastering files such as used by the Wurlitzer printers.

It can be shown how sound samples, also can be stored into a structure known as a "soundfont" which can be parsed and rendered using tools that are intended for processing traditional fonts known as typefaces.

Music can then be rendered using event based applications such as Virtual pipe organ relays and audio or played directly as WAV audio.

After graduating in 1982 with an Associate of Arts, and an additional 2 year Electronics Engineering Technician certificate, **Julie Porter** went to work in the early days of the home computer industry. She began by setting up from scratch retail customer support, then onto Apple Imaging, where Julie joined the Postscript Language

Development team, testing used piano roll images and the ABC music notation for music fonts. She also collects and makes watches, clocks and mechanical Automata. This led to independent consulting adding MIDI electronics to Pianos, Fairground and Theater Pipe organs. She built her first roll scanner in the late 1990s and continues to improve and add to community research and development. She has also served as President of the Experimental Rocket Propulsion Society, and Secretary of the National Association of Watch and Clock collectors, San Francisco chapter. Steve Jobs once described her as “an abstract individual with practical real world experience.”

Marcel Veel/Koos van Kruistum (Leiden)

Give the Player Piano and the Reproducing Piano a Future?

The demand of new (copies) of piano-rolls may not be very high but it is essential to cater to the smallest demand if we want the player piano, and reproducing piano specifically, to survive as an instrument in our homes. Moreover, reproduction rolls are of great value as a sample of the way of playing in former times. Pianists who had lessons from Liszt or other great pianists and who never made a record can be heard as if they are alive.

We are working on a versatile production system for roll making so that we can make rolls for different kinds of systems. The first rolls have been made. We can scan existing rolls to copy them but we can also make a well playing midi-file of that roll. We are also working on the production of new hand-played artists rolls for reproducing pianos. With modern techniques it is possible to make that happen.

The presentation will be given by Marcel Veel (pianola restorer and chairman of the Dutch Pianola Association) and Koos van Kruistum (software and hardware).

Marcel Veel started a screen printing company in 1987. In 2009 he restored his first pianola and became a member of the Dutch Pianola Association. Since that time he has restored about 20 instruments, becoming in 2018 the chairman of the Dutch Pianola Association. Two years ago he started working with Koos van Kruistum on the reproduction of player piano rolls and the production of completely new rolls.

Koos van Kruistum is active in the fields of business management, Computer technology, Electronics, C++ and Python programming and machine construction. He has been the owner of BMP Datapartners, a firm in the IT sector, since 1996 and has been working since 2020 on developing software and hardware for reproduction pianos.

Timothy A. Baxter (Atlanta)

Copying Original Rolls in the 21st Century. Recreating the Roll's Original Punch Matrix to Create an Accurate Master Roll File for Preservation and Perforation

This presentation would, in real time, demonstrate how “raw” optical scans – from multiple sources and at multiple resolutions – can be manipulated with various software to create a “punch matrix” or “master roll file.” A master roll file is akin to the

template that an original roll manufacturer would have used to punch a production music roll. Such files can be used to perforate perfect duplicates of production rolls today, and new paper copies – on archival quality paper – may represent a useful supplement to the (1) storage of original rolls (many now in poor condition), and (2) creation of “raw” optical scans of original rolls. Further, such files would represent a better starting point for MIDI emulations of original music roll performances, as they more accurately represent the manufacturer’s intentions.

Creating a master roll from an optical scan is the next logical step in the historic preservation of original rolls. There are multiple means for obtaining an optical scan of a music roll, however, a raw optical scan of an original production roll may not always represent the manufacturer’s “actual intentions” for what the roll was supposed to be. Original production rolls often suffer from errors that include skipped rows due to machine slippage and errant punches. Such errors can result in improper and unmusical playback. And regardless of playback, with such errors, they would not represent the original intentions of the manufacturer. Master roll reconstruction gently and carefully corrects obvious errors resulting from poor perforation originally, or from legacy damage to the original roll. In addition, a fair amount of accurate master roll recreation can be done from scans collected over the last forty years (which scans are not as the same high resolution as current scans), thus potentially increasing the number of rolls which can be preserved.

From his boyhood days in Rhode Island, **Tim Baxter** has had a longstanding and deep interest in early technology, music, and its application to history, which is reflected in his collection of historic instruments and music media. Tim is a thirty-plus year member of AMICA [Automatic Musical Instrument Collectors’ Association], and served in several board positions, including president. Since 1997 he has been the proprietor of Meliora Music Rolls; in 2014 he acquired perforator equipment, as well as specialized software to ensure perfect accuracy in duplicating historic music rolls. Meliora offers a full-service music roll production. In addition to this “part time” business, he has a full time law practice in his adopted city of Atlanta, where he lives with his physician wife Lynn. They have two teenaged children. Most recently Tim was profiled by Public Broadcasting Atlanta in his role as technical supervisor of the Callanwolde Fine Arts Center historic Aeolian Organ, op. 1484.

Inja Stanovic (London)

The Musical Museum’s Hidden Treasures: Duo-Art Audiographic Rolls

The Musical Museum in Brentford, London stores an extremely valuable and significant collection of self-playing musical instruments and around 20,000 paper music rolls, mostly accumulated by the museum’s founder Frank Holland. No other museum, library or archive in the United Kingdom holds a similar collection of musical materials. Although it is well-visited and admired by its audiences, the collection is vastly under-explored by academic researchers.

This paper explores a part of the museum’s piano roll collection, focusing on audiographic Duo-Art rolls. Launched in 1926, the collection includes several

categories of a broad group of audiographic rolls: Biographical, Analytical, Running comment, and Annotated. All the rolls were issued in both Duo-Art and Pianola forms. Each of the subgroups presents a wealth of information, which will be presented in this paper, through several case studies; biographical rolls include information on the composer, musical excerpts played by various artists, and elaborated picture materials; analytical rolls offer, as their name suggests, analysis of the pieces which are first presented through formal parts, and then played in their entirety; running comment rolls were very similar to analytical ones, however the performance itself is accompanied by explanations; Annotated rolls, by far the most numerous, present a rather brief text before the piece plays in its entirety.

Although not commonly valued by collectors, the audiographic rolls are of a great value in performance practice research, as well as reception and iconographical research. The wealth of information presented through an extensive number of performances by some of the leading performers of the early twentieth century, combined with the texts which demonstrate the development of composers' reception and exquisite drawings, makes audiographic rolls some of the most interesting sources in performance practice research. This paper draws conclusions from the author's own pianistic experience, and presents the undiscovered potential behind these unique pieces of history, both in the fields of musicology and performance.

Dr **Inja Stanović** is a Croatian pianist and researcher, currently residing in Sheffield, UK. As a pianist, Inja has performed in Croatia, Australia, France, Germany, Italy, Slovenia, Mexico, the United Kingdom, and the United States. Besides being an active pianist and published author, Inja has also held various academic posts in Birmingham, Sheffield and Sydney. Most recently, she has won the prestigious Leverhulme Trust Early Career Fellowship, hosted by the University of Huddersfield, and is conducting a research project "(Re)constructing Early Recordings: a guide for historically informed performance".

Pietro Zappalà (Pavia)

The Italian F.I.R.S.T. Company and its Catalogue. Analysis and Discoveries

To date we have little information about the rolls labelled F.I.R.S.T. (Fabbrica Italiana Rulli Sonori Traforati), the leading Italian company in the production of piano rolls. The collection of a dozen rare dated publisher's catalogues has made it possible to reconstruct of the (almost) entire catalogue of the company. The comparison of the catalogues, combined with the few extant documents related to the company and a deep investigation of a representative collection of F.I.R.S.T. piano rolls (held in the Department of Musicology, Cremona, University of Pavia), gives us the opportunity to explore many aspects of the output of the company. Among those aspects are the rather precise dating of the first issuing of the catalogue's titles, the evaluation of the preferred repertoire (composers and genres), the national and international market considered by the managers of the company, and the company's prompt reaction to changing tastes in the musical world. The analysis of the catalogues also led to the discovery of some unexpected titles of otherwise unknown works: e.g. a *Fantasia*

brillante sui Promessi sposi by Amilcare Ponchielli, not listed in his thematic catalogue. Other valuable rolls are preserved in the collection of the Department of Musicology: among them the piano roll version (1927) of *Pacific 231* of Arthur Honegger, and the *Toccata for piano player* (1987) by Daniele Lombardi.

Pietro Zappalà, Master's studies (1985) at the University of Pavia, Ph. D. (1992) in Musical Philology. Music librarian (1989–1994), Research Fellow (1994–2004) and Associate Professor (since 2005) at the Musicology Department, University of Pavia. His scholarly activities embrace musicology (research and edition of documents and scores of eighteenth and nineteenth centuries composers: Locatelli, Rolla, Mendelssohn, Bazzini, Bottesini, and Ponchielli) and music librarianship (thematic catalogues; digitization of historic music archives – manuscripts, early editions, shellac and vinyl recordings, piano rolls). Co-founder (1994) and vice-president (1994–2000) of the Italian branch of IAML. Co-founder (2011) and President (since 2019) of the Centro Studi Amilcare Ponchielli.

Darius Kučinskas (Kaunas)

Ethnic Piano Rolls. Between “Foreign”, Folk and National

Recent years are marked with a growing interest in „ethnic“ piano rolls. Articles and books on Greek (Pouliopoulos, 2019), Spanish (Burgos, 2020), Polish (Skalska, 2021), Lithuanian (Kučinskas, 2018), Czech (Kukral, 2021), Brazilian (Dias, 2013), and Jewish (Weill, 2011; Berkman, 2021) music for player piano confirm a return of scholars to the topic. The most valuable thing about these recordings is their uniqueness, making them the only documentation of these recordings, not found on other recorded media such as phonograph cylinders or gramophone discs. Though non-English language rolls in US were titled „foreign“ by QRS, they played an important role in the US music history. These rolls encapsulated the musical life of various US ethnic communities including folk music (songs, dances, religious hymns) as well as art music of local composers (piano pieces, cantatas and even fragments of ethnic operas). On the other hand, there are many rolls issued in other countries and usually titled „national“. These rolls mostly document art music by national composers, but folk music recordings occupy an important part too. This presentation aims to expand the discussion about „ethnic“ piano rolls starting with a more clear definition of a title, with a consideration of recorded music, its types and genres, and further ways of cataloguing and research.

Dr **Darius Kučinskas** is a professor at Kaunas University of Technology (Lithuania) and an international expert of European Higher Music Education (MusiQuE, Belgium). He graduated from the Lithuanian Music Academy as a pianist and later turned to musicology and did research on the music of Mikalojus Konstantinas Čiurlionis. The *Chronological Catalogue of Čiurlionis Music* and 12 music editions were published in the last decade. Music for player piano, especially 'ethnic' piano rolls has been Kučinskas's research topic since 2010. He published the *Complete Catalogue of Lithuanian Piano Rolls* (2014) as well as various articles (among them in *Fontes Artis*, 2018), and he has given presentations at universities including Stanford, Chicago,

Philadelphia, Tokyo, Hilversum as well as Vilnius and Kaunas (Lithuania). His plan for the nearest future is to form an international research group and to prepare a complete catalogue of ethnic piano rolls.

Daniel Heil (Brackenheim)/Marc Widuch (München)

Rediscover of Lost Reproducing Rolls of the Welte, Hupfeld, Philipps Repertoire

Although the universe of reproducing pianos is truly fascinating, player pianos would be nothing without the rolls. Ultimately, they were just meant to be “machines” for enjoying the repertoire, or to be played by yourself – so it was all about music. The rolls tell us a lot about the early 1900’s – musical taste, interpretation, pianists’ styles, materials used, and the manufacturers of rolls, as well as their marketing and production strategies.

As DMP (Daniel Heils und Marc Widuchs Pianolarollen) our mission is to digitize and make available all known reproducing rolls and artist rolls. During our presentation, we will focus on those titles, that have most likely never been available before as audio or reprints, some were even thought to be lost, or never published officially. We will present some of these rarities and share details on our findings from scanning thousands of these rolls such as Welte roll No 374, the 3rd part of the *Waldstein Sonata* recorded by Teresa Carreño 2 April 1905. This roll was replaced in the 1906 Welte catalogue by roll No 373, recorded 6 October 1906 – but why? Roll 374 presents a very different Carreño. Same findings we have from further Welte rolls, as well as Hupfeld and Philipps. Based on our close cooperation with universities, museums, collectors and private experts we will foster cooperation and networking on this specific topic. In doing so, we’d like to inspire further collectors to provide rare titles for scanning. And, as it is all about music, we will naturally present some audio files of these rare rolls, too.

Music and playing instruments (piano, organ, saxophone, bassoon) have fascinated **Daniel Heil** for more than 35 years, building and restoring instruments for more than 25 years. After working with some well-known organ companies (e.g. Steinmeyer, Oettingen), Daniel received the master’s certificate and opened his own workshop in 2010. Daniel provides organ planning and building, as well as expert services to various small to very large organs around the world. In 2010 Daniel specialized in the restoration of player pianos and reproducing pianos of all types, like Welte Mignon, Hupfeld DEA, Tri-Phonola, Philipps DUCA/RTIST, Duo-Art, Ampico, etc. In 2020 Daniel co-founded with Marc Widuch DMP (www.pianolarollen.de) to offer digitization and authentic reprint of reproducing and artist rolls.

Marc Widuch has spent more than 30 years in piano business with a special emphasis on pre-1940 pianos, player and reproducing pianos, piano manufacturers history and repertoire. As a passionate autodidact, he has done some research on various topics, like still existent reproducing pianos, Feurich production, Welte, Hupfeld and Philipps repertoire and pianists, etc. In doing so, Marc cooperates closely with leading experts, enthusiasts and institutions all over the world. In 2017, he launched the idea of the Global Piano Roll Meetings. Marc is founder of a piano business

located in the Munich area, offering rare instruments, rolls and accessories of the golden era (www.faszinationpianola.de). In 2020 Marc co-founded with Daniel Heil DMP (www.pianolarollen.de) to offer digitization and authentic reprint of reproducing and artist rolls. He is also active as a coach for companies and individuals (www.marcwiduch.de).

Jordi Roquer/Àngel Monasterio/Joaquín Ródenas (Barcelona)

The Spanish Industry of the Pianola. A First Historical Approach

In Spain, the player piano phenomenon grew with the initiative of the Catalan company Rollos Victoria, a pioneer and undisputed leader in the sector. Victoria produced more than 100.000 rolls a year – a notable amount for a local industry – and was quickly followed by about twenty Spanish publishers. This proposal aims to take a first look at the business landscape of the player piano in Spain, with a brief description not only of its main publishers and catalogs, but also of the commercial activity of Victoria Rolls, ERA Rolls of Madrid and a third factory, España Musical, based in Zaragoza. To round off this scenario, it is also interesting to follow the testimonies of the press (with a chronicle of concerts in exhibition halls such as the Sala Aeolian, Sala Angelus or Sala Mozart) and some key figures such as Manuel Blancafort (Victoria) or Fermín Toledo (artistic director of Aeolian in New York that later moved to Madrid). Finally, thanks to the more than 15,000 works cataloged in the last 7 years by our Research Group, we can venture some questions related to music consumption and reception looking at what the roll industry can tell us, a perspective incomprehensibly neglected by musicologists.

Jordi Roquer has a PhD in Art History and Musicology from the Universitat Autònoma de Barcelona (UAB), where he teaches musicology in the Department of Art and Music and technology as applied to musicology for the Master of Digital Humanities. He is the editor-in-chief of the *Journal of Sound, Silence, Image and Technology*, a peer-reviewed journal that offers a forum for scientifically-informed scholarly discourse around the notion of sound, broadly conceived, in an audiovisual context. His research focuses on new models of recorded sound analysis and on technologically mediated music reception, or contemporary socio-technological behaviors toward music. He has served as PI for sound preservation projects at the Music Museum of Barcelona (2014) and the Mediterranean Museum (2015), as well as for the National Library of Spain's project to digitize piano rolls (2016).

Àngel Monasterio García holds a Bachelor's Degree in Musicology with Specialization in Musical Management and Heritage, and in Historical Musicology from the Autonomous University of Barcelona (UAB). He is a member of the MRT (Music of Technological Reproduction) working group and the MUSC (Music in Contemporary Societies) research group, both in the UAB's Department of Art and Musicology. His research focuses on cataloging, preserving, digitizing and disseminating historical sound media, and on the marketing and reception of technology-mediated music in the contemporary world. He has an extensive experience in cataloging music rolls for mechanical reproduction instruments, having worked with public collections such as

that of Alexandre de Cabanyes i Marquès (2017); Chiappo Arietti (2017), and the Counts of Bell-Iloc (2021).

Joaquín Ródenas Calopa holds Bachelor's Degrees in Musicology from the Autonomous University of Barcelona (UAB) and in Computer Science from the Polytechnic University of Catalonia (UPC). He is a member of the UAB's MUSC (Music in Contemporary Societies) research group, and his research interest focuses on historic sound media and electronic music heritage. He teaches technology as applied to music management at the Superior School of Music of Catalonia (ESMUC), and he partners with the Music Museum of Barcelona to create dynamic educational activities related to music and technology.

Esther Burgos-Bordonau (Madrid)

The “Hazen Hosseschrueders” Piano Roll Collection. An Approach to its Study

The name Hazen is closely related to the history of pianos in Spain. Their story started at the beginning of the nineteenth century, circa 1802, when the first member of the Hosseschrueders family settled in Madrid (Spain). Subsequently, this carpenter and piano maker from Woensdrecht (Holland) started an important career that led to the collaboration of two of his nephews, the Hazens from the Netherlands. They continued with the piano business, manufacturing, sales and import, throughout the nineteenth century. Today, the 6th generation of the Hazen family continues with the business. Aside from the pianos, an interesting collection of piano rolls was kept in their storerooms for decades. Most likely, when the pianola boom took place in our country, most of these rolls would have been on sale in their store. Today, many years after the business declined, the remaining rolls are part of the Hazen archive. Through this presentation we want to offer an approach to the collection itself (489 piano rolls), the main titles included, the genres or musical styles, and the publishers and performers.

Esther Burgos-Bordonau (PhD) is Professor at the Faculty of Information Studies and Librarianship in UCM, Spain. Her research areas are Music Information & Documentation and History of Libraries. Since 2014 she's been working in Sound Recordings. The remarkable collection of piano rolls of the National Library of Spain was her first research with published results. Later she continued gathering and describing different collections. Recent publications attest to this. In 2018 she was awarded a grant to study a Spanish piano roll collection at the Archive of Recorded Sound in Stanford University. Stanford published an online exhibit on this collection in 2020, and she published a Spanish-language hardcover book about it during the same period. Nowadays her research is focused on the Hazen-Hosseschrueders collection discussed in this presentation.

Carolina Estrada Bascuñana (Bern)

When the Digital Era Meets the Piano Roll. Decoding the Recordings of Twentieth-Century Classical Composers Performing Their Own Works

In recent years, early recordings have attracted the attention of a growing number of musicologists and performers interested in early performing practices. The exploration of these historical sources has produced new knowledge, transforming current historically-informed approaches and prompting lively discussions and debates among experts. There is no doubt that audible sources offer a historical value, adding a new dimension in the study of performance beyond the written text. Early recordings reveal striking discrepancies in expression between performances of nineteenth-century trained pianists and current interpretations of nineteenth-century music that we hear in concert halls, today.

During the early twentieth century, recordings made for reproducing piano systems were considered by many to offer a more accurate reproduction of the artistry of revered nineteenth-century pianists than acoustic recordings. After this technology was established in 1905, many famous pianists chose to record their performances exclusively on piano rolls. Some of them also recorded on different systems, providing an excellent opportunity for comparison. Piano rolls could be described as a data sheet; in recent decades, engineers have built optical and pneumatic apparatuses to convert roll perforations into Musical Instrument Digital Interface (MIDI) data.

This investigation aims to explore the application of digital technologies in the study of piano rolls through the analysis of a selection of piano performances by twentieth-century classical composers performing their own works, including Alexander Scriabin, Enrique Granados and Claude Debussy, among others. This investigation not only serves to document revisions that are not found in printed musical editions but also to challenge current practices, encouraging new research and expanding our knowledge of the field.

Dr **Carolina Estrada Bascuñana** is a musicologist and pianist from Barcelona. She specializes in piano performance of the nineteenth and twentieth centuries, for which she has been awarded numerous prizes. She pursued a doctoral degree in music performance at the Sydney Conservatorium of Music, Australia, received a Master's degree from the Conservatorium van Amsterdam and the Universität der Künste Berlin and a Bachelor degree from the Liceu Conservatorium of Music in Barcelona and the Amsterdam University of the Arts. She is an international pianist, convenor and co-founder of international piano festivals in Spain and Australia. She spent eight years as teacher in piano performance and has been a postdoctoral research fellow of the Swiss National Science Foundation at the Institute Interpretation of the Hochschule der Künste Bern HKB and has been invited for many conferences and lectures.

Lourdes Rebollo (Valencia)

Common Trends of Interpretation Between Alicia de Larrocha (Pupil) and Frank Marshall (Teacher) in Their Recordings of “El Puerto” (from *Iberia*) by Albéniz

The Granados Academy was founded by Enrique Granados in Barcelona in 1901. After the composer's death (1916), Frank Marshall assumed the directorship in 1920, followed by Alicia de Larrocha in 1959. The Academy has trained outstanding pianists and teachers following the tradition of a Catalan piano school based on sonority, voicing and detailed use of the pedals. Alicia de Larrocha was undoubtedly one of the main exponents of this tradition. She began playing the piano at the age of three and was trained at the Academy under the guidance of Frank Marshall, who was her adviser until he died in 1959. Larrocha assumed the direction of the Academy that year, but at the same time she developed a successful international career. She has been considered one of the best interpreters of Spanish composers such as Albéniz, Granados and Falla, among others, and one of the greatest pianists of the twentieth century.

To find similar stylistic and interpretive traits between Marshall and Larrocha, two recordings of *El Puerto* (from *Iberia*) by Albéniz are analysed: Marshall (piano roll Welte, ca. 1925) and Larrocha (LP Hispavox, 1958). About this piece, Enrique Granados wrote in a letter to Isaac Albéniz: "I want everyone to play it. Sorry if many blow it up, but this is a way of telling you that I love it". It is very likely that Frank Marshall worked "*El Puerto*" with Granados at the Academy, and in turn, Alicia de Larrocha with Marshall.

A comparative study of the interpretations of Marshall and Larrocha showed certain common trends of interpretation between these two pianists, which may have been transmitted from teacher to pupil, giving us objective elements that contribute to the knowledge of the Catalan piano school tradition: Granados-Marshall-Larrocha.

Lourdes Rebollo is a Mexican pianist, educator and researcher. She obtained her BMus in Piano at the National Autonomous University of Mexico, her Postgraduate Diploma in Piano and Academic Studies at Trinity College of Music (London) and her MA in Music Performance at City University London. She studied with Jorge Federico Osorio, John Bingham and Madge Musgrave, among others. In 2015, she received her PhD in Art History and Musicology (cum laude) from the Autonomous University of Barcelona with the thesis *Iberia by Isaac Albéniz: Study of its interpretations through 'El Puerto' in sound recordings*.

Her research focuses on the study and analysis of musical performance, including computational methods, with interest in the areas of historical recordings, nineteenth and twentieth century piano music, performance practices, pedagogy and psychology of music.

Lourdes taught at the main conservatories and professional schools of music in Mexico for 15 years. In 2019, she joined the Universidad Internacional de Valencia.

Heike Fricke (Leipzig)

Digitizing Piano Rolls. Views and Perspectives for Interpretation Research

In a comprehensive digitization project supported by the Federal Ministry of Education and Research (BMBF) at the Musical Instrument Museum of the University of Leipzig, large holdings of the collection are currently being made accessible. On the one hand, selected keyboard instruments are digitized with regard to their sound disposition and sound stock. The second essential part of the TASTEN project is the digitization of 3.200 valuable piano rolls in the museum's collection. This paper offers an insight into the technical process of scanning the piano rolls and how the results are presented via open access.

In addition, it shows that digital research possibilities offer to musicology completely new perspectives in many respects. Thus, this paper deals with the fact that we regard a piano roll as a visualization of a virtuoso performance: The intangible element of the historic interpretation, the performance itself, is – for the first time in history – repeatable and encoded on the piano roll. These insights into historic performances should have a direct epistemological implication on the core of musicological research, namely a work's representation in a written score. A solid juxtaposition of interpretation and notation is made possible for the first time by the comprehensive digitalization of piano rolls and must – especially when composers interpret their own pieces – have effects on the musicological perception of the work's concept.

Furthermore, for the first time, piano rolls provided performers with a medium that enabled them to hear and reflect on their own playing. This undoubtedly led to a radical change in musical interpretation, which has received little attention in musicological research to this day. In addition, for the first time in the history of music research, there is now a comprehensive repository of qualitatively outstanding musical works in various writings, as human-readable musical texts, as piano rolls readable for player pianos and as computer-readable digital copies. This is the prerequisite for the application of comparative methods and for the exploration of this repository by means of digital humanities. A case study should illustrate these perspectives.

Heike Fricke studied musicology, theatre studies and journalism at the Freie Universität Berlin and holds a PhD in Musicology. She worked with the musical instrument museums in Berlin and Edinburgh and was awarded an Andrew. W. Mellon fellowship in art history by the Metropolitan Museum of Art in New York. Heike published articles in *MGG*, *New Grove*, *Lexikon der Holzblasinstrumente* and books like *Catalogue of the Shackleton Collection*, *Faszination Klarinette* und *Die Klarinette im 18. Jahrhundert*. She is the editor of the German special magazine *rohrblatt* and the *CIMCIM Bulletin*. Currently she conducts the research project TASTEN at the Musikinstrumentenmuseum der Universität Leipzig.

Manuel Bärtsch (Bern)

Riemann's Shadow? The Performative Analysis of Beethoven's Piano Music around 1900

Is there such a thing as an “analytical” performance of music? The leading theorists of the nineteenth and twentieth century claimed that their findings should have had a direct influence on musical interpretation; champions of American “Schenkerism” justify its outsized influence in the academy by pointing to its impact on informed musical performance. Yet this relationship has never been simple; this paradigm has also met with resistance, not least from the side of historically informed performance practice. This lecture sheds light on the lively relationship between Hugo Riemann's manifold attempts to establish his theories in musical practice and the performances of piano music by his contemporaries. It takes on the one hand a synopsis of Riemann's writings and critical Beethoven editions, and on the other the piano rolls of Riemann's favourite pianist, Frederic Lamond. In so doing it offers a more precise and historically accurate understanding of structurally triggered musical performance. The presentation will conclude with an exploration of the practical consequences of this analysis.

Manuel Bärtsch is a pianist, lecturer and musicologist. He studied at the Basel Music Academy (piano: Jürg Wytenbach; chamber music: Walter Levin, Hatto Beyerle, Gérard Wyss; composition: Rudolf Kelterborn) and graduated with distinction with a diploma in teaching and solo performance. He has won prizes for his chamber music performances at international competitions in Stuttgart, Berlin and Graz, and as a soloist he has performed with the Basel Symphony Orchestra and the Orchestre National de Lyon. He plays in the Ensemble Phoenix Basel and is a professor and research lecturer at the Hochschule der Künste Bern. He completed his Master of Arts and later his PhD in Musicology at the University of Bern with a dissertation on piano playing around 1905 mirrored by the Welte-Mignon system. His publications deal mainly with interpretation research, and he wrote the chapter on music and rhetoric in the *Handbuch der Medienrhetorik* (Beck, 2016).

Nicholas Williams (Perth)

Arthur Friedheim: A Case-Study in the Marketing of Piano Rolls

Arthur Friedheim (1859–1932) was one of the great pianists active in the early twentieth century. Famous as one of Liszt's favourite pupils, a virtuoso of the highest order, with an extensive repertoire of some of the most difficult music written for the instrument, Friedheim was among the first group of artists to put down recordings for the reproducing piano roll system, his first rolls appearing in 1905. Over the course of his career, Friedheim would produce (according to Larry Sitsky's catalogue) a total of 70 individual rolls for the major labels: Welte, Triphonola, Duo-Art and Philipps-Duca. From the earliest days of his involvement with the piano-roll industry, Friedheim's name was used by these companies frequently in advertising and for promotional purposes. His rolls were played at live demonstration concerts in New York. He was drafted to provide testimonials, and his picture and signature were included in printed

advertisements, alongside those of other great pianists, to lend prestige and credibility to this emerging technology. With the approach of the 1920s, and as the player piano became more widely adopted, we see the tone of these advertisements change – from pure technological amusement to a form of escapist high-art, where the “splendidly and movingly poetical, as well as authoritative” playing of Arthur Friedheim, “one of the great Franz Liszt’s most famous pupils,” could be brought into one’s own home. Long after Friedheim himself had retired from the concert platform, Friedheim’s rolls were being used in concerts alongside live orchestras and singers – and his performances became the subject of review by specialized piano-roll critics, highlighting some of the issues of contemporary reception of piano rolls. By the late 1920s, his recordings of Liszt were even being repurposed as “audio-graphic” rolls, featuring printed illustrations and descriptive text, marketed towards children. By following the piano-roll journey of Arthur Friedheim, through a series of documents and anecdotes, this paper seeks to explore the many and multifarious uses and marketing tactics invented by piano roll companies to sell their products.

Nicholas Williams is a pianist and scholar based in Perth, Western Australia. As a pianist, Nicholas seeks to revitalize the performance styles of the late nineteenth century, as heard on early recordings. As a researcher, he is interested in pianos, music and performance practices of the nineteenth century, with a particular focus on the area of performance practice of Liszt and his pupils. In 2018, he completed a Master of Arts (Performing Arts) at the Western Australian Academy of Performing Arts (WAAPA), producing a thesis entitled *Performing the Hungarian Rhapsodies in the Liszt tradition*, exploring the writings of Liszt, and writings and recordings by Liszt’s pupils. Nicholas is currently a PhD candidate at WAAPA, studying the piano-playing of Liszt’s pupil Arthur Friedheim through writings, recordings and reception history.

Christoph E. Hänggi (Seewen)/Sebastian Bausch (Bern)

The Britannic Organ and the Master-Rolls for the Welte Philharmonie Organ

Considering their history as organ- and orchestrion-builders, it must have been a logical next step for Welte after the invention of the Mignon to apply the same reproducing technology to the pipe organ. The museum in Seewen is home to one of the largest of these magnificent instruments, the Philharmonie. Christoph E. Hänggi will introduce the fascinating history of this instrument, originally intended for the ocean-liner Britannic, and will describe how its restoration and installation in the main hall of the new museum building created an opportunity for retrofitting it with a digital, MIDI-operated player system. Another important part of the museum’s collection is the fragment of the only surviving Welte recording machine.

The Britannic organ was the starting point for the long and fruitful collaboration between the museum and the Hochschule der Künste Bern (HKB). The surviving recording masters stored at the museum offer a unique perspective on the organ recordings and have become central to several research projects at the HKB. The Philharmonie recordings by famous organists like Reger, Gigout, or Bossi could be considered even more important for understanding nineteenth-century organ

performance traditions than are the piano recordings for the Mignon, because organ recordings on disc are virtually nonexistent before the mid-1920s. Sebastian Bausch will give an overview of the HKB's research into interpretation based on organ rolls and will discuss future prospects for exploring the organ repertoire.

Dr **Christoph E. Hänggi**, *1960 in Basel, studied musicology, art history and history at the universities of Basel and Zurich, Master of Arts in Basel, doctorate with a thesis on the aesthetics of Romantic music in Zürich; went on to complete an Executive Master in Corporate Management from the Bern University of Applied Sciences. Music editor at classical music station Opus Radio from 1990 to the end of 1992; from 1993 to 2003, music manager at the Bertelsmann Music Group, most recently as Director International of a classical music label in Munich; since June 2003 director of the Museum of Music Automats in Seewen, a museum of the Swiss Federal Office of Culture; editor of two publications on the Welte Philharmonic organ and interpretation research; in addition, advisory board member of the German Society for Self-Playing Musical Instruments (GSM), member of the board of the Society of the Seewen Museum of Music Automats (GMS) and member of the Swiss Musicology Society (SMG).

Sebastian Bausch studied harpsichord with Robert Hill in Freiburg and received degrees for organ, harpsichord, and modern and historical piano performance from the Schola Cantorum Basiliensis (Jörg-Andreas Bötticher, Wolfgang Zerer, Edoardo Torbianelli) and in Freiburg (Christoph Sischka). Since 2012 he has been employed as a musicologist at the Hochschule der Künste Bern, pursuing a PhD in nineteenth-century piano performance practices in the SINTA programme of University of Bern and HKB. He is one of the creators of the magic-piano.ch webpage and is an expert on the digitization of piano rolls. He is the main organist of three parishes in the city of St. Gallen and performs as a soloist and chamber musician on modern and historical keyboard instruments. He is especially committed to applying the results of his research to his performances.

Jörg Holzmann (Bern/Salzburg)

From “Sturdy Wunderkind” to “Distinctive Accompanist”. Tracing Paula Hegner on Welte, Hupfeld and HMV

Born in Vienna in 1889, Paula Hegner received her first piano lessons from Hans Schmitt, who was considered a reformer of piano pedagogy. He was also the singing teacher of Paula's sister Flora. They often performed together in their younger years and were often displayed as typical child prodigies, but around the turn of the century, their musical ways parted. While Flora became an operetta singer in Dresden, Paula studied at the conservatory in Leipzig with Robert Teichmüller.

In 1905, she recorded five Welte Mignon rolls and only one year later, Paula Hegner signed a contract with Hupfeld; the last ones with this company appear to have been issued in 1912, when her soloistic activities seem to have come to an end.

Since the Kunstlied had begun to form a focal point in her work, she eventually became one of Elena Gerhardt's regular accompanists, being the pianist chosen by

the famous German mezzo-soprano for her Carnegie Hall debut as well as for subsequent North America tours and the recording of an entire Schubert album in 1926 with HMV in London.

After a biographical introduction, the paper's aim is to trace stylistics (and a possible change in them) that can be considered typical for Paula Hegner's piano playing. To achieve this, the following method is applied: First, one of Hegner's earliest rolls – the Welte-Mignon nr. 410 with Liszt's Valse Impromptu, probably the first recording of this piece ever made – is compared to recordings by other pianists from the 1910s and 20s. In a second step, her personal stylistic traits, which could be called her musical signature, are also identified in some of her other rolls. To give a broad picture, works from different centuries are chosen: Scarlatti, Mozart, Chopin and Reger. Finally, these findings are applied to the recordings with Elena Gerhardt. This way, the playing of Paula Hegner is approached as comprehensively as possible and a picture of this most versatile pianist shall emerge.

Jörg Holzmann first studied classical guitar at the University of Music and the Performing Arts in Stuttgart. After finishing both the performing and the teaching course with the highest marks, he was awarded prizes at numerous international guitar competitions. After that, he studied musicology, literature and art history. From 2018 to 2020 he was scientific researcher at the Leipzig University, currently he works on historic embodiment at the Bern Academy of the Arts HKB. Among others, his latest fields of research are *Gender and the Piano Roll* and *Learning from Historical*. He is also engaged in editions of forgotten music and is active as a guitarist and composer.

Gerhard Dangel (Freiburg i. Br.)

Welte Employees and Roll Editors

Editing music for music automatons has a long tradition at Welte & Söhne, beginning with the company's founder Michael Welte. Welte's instruments were famous above all for their outstanding musicality, which set them apart from the orchestrions of other manufacturers. The programme "Notenblätter für Orchestrions" already comprised 31 pages around 1890. Some of the musicians become known by name in the catalogues for the Orchestrion No. I and II, which appeared in 1911 and 1913. Clearly, some of the pieces published for the Philharmonie organ were not recorded by organists from the orchestrion period, but here the arrangers are mentioned by name for the first time. In the 1911 Roll Catalogue for the Philharmonic Organ Types 1 and 2, a total of 504 titles are all arranged or a few transferred from mignon rolls.

Some of the musical editors were also engaged in checking and possibly correcting music rolls for the Welte-Mignon reproduction piano, which can be proved in the case of some music rolls. In this way, at least partial biographical data could be determined on the basis of the names, which are now presented here.

Gerhard Dangel, born in 1951, was responsible for the musical instruments and the coin collection at the Augustinermuseum until his retirement in 2017. In 2005, he was responsible for the exhibition "100 Years of Welte-Mignon" at the Augustinermuseum. Various articles and publications, among others "Archäologie eines Klangs" (2018);

Welte-Mignon Klavierrollen: Gesamtkatalog der europäischen Aufnahmen 1904–1932 für das europäische Welte-Mignon Reproduktionspiano (2016, with H.-J. Schmitz); “Die Firma Welte und die Welte-Philharmonie-Orgeln weltweit: eine Bestandsaufnahme” (2011); “The History of the Welte family and the house of M. Welte & Sons” (*The Pianola Journal*, 2007); *Aus Freiburg in die Welt – 100 Jahre Welte-Mignon: automatische Musikinstrumente* (2005); *Geschichte der Firma M. Welte & Söhne Freiburg i. B. und New York* (1991).

Hermann Gottschewski (Tokyo)

Towards an Artistic Performance of Piano Rolls. Using Welte-Mignon-Roll No. 548 (Raoul Pugno Plays Chopin’s Nocturne op. 15,2)

When I finished my doctoral dissertation almost 30 years ago, one of the desiderata I left for my future research and artistic activity was to establish a new category of musical art: An artistic performance of piano rolls. I formulated the program for this project in an article “Interpretationen von Interpretationen? Die Rekonstruktion historischer Aufnahmen als künstlerische Herausforderung», published in *Musiktheorie* 1996/1, p. 31–38 (tinyurl.com/IntvInt). The idea was, that at a time when piano rolls could be transformed in MIDI files and reproduced on modern computer pianos (like the CEUS digital grand piano by Bösendorfer or the Disklavier by Yamaha) it should be possible to remake piano rolls by compensating the weaknesses and limitations of the original documents with additions made from the standpoint of a modern interpreter who studies, comprehends and interprets the original performance and then creates a new sounding document which is his or her vision of what the original performer wanted to express — in the same way as a traditional performer who studies, comprehends and interprets a musical score and then creates his vision of what the composer wanted to express. And, I substantiated my claim that this would be an artistic rather than an academic exercise.

Circumstances in my life meant that I didn’t promote this project further. In the meantime other researchers, like Nigel Nettheim on Pachmann, have put similar projects into practice. Nevertheless, when I recently revisited my article of 1996, I felt that some suggestions that I had made would still make sense today, all the more so since an artistic project perhaps needs more similar tries than an academic one to realize its potentials. Furthermore, when I spoke with Sebastian Bausch about the research of his group, I found that he had already beautifully solved a number of problems that I had mentioned in my article from 1996. So, I found it very challenging to take the opportunity to pick up my old project. The reason to choose Pugno’s Chopin Nocturne as my first example is, apart from its outstanding quality, that I analysed this interpretation in detail in my doctoral dissertation, and that there is also an acoustical recording of the same piece two years before the Welte recording.

I will not yet be able, however, to present a finished version of my “artistic interpretation” of Pugno’s interpretation on this conference, but I will give insights into this ongoing project in my presentation.

Hermann Gottschewski, born 1963, is a musicologist, composer and organist. He majored in piano and music pedagogy at the University of Music in Freiburg i. Br. (Germany), and also studied musicology, Japanology and mathematics at the Albert-Ludwig-University in Freiburg. After receiving his PhD in musicology (1993, summa cum laude) he submitted his habilitation treatise at the Humboldt University Berlin in 2000. Since 2004 he has been professor (ordinary professor since 2015) at the University of Tokyo, Japan's leading elite university. As a musicologist, Gottschewski works in the fields of performance and interpretation research, as well as in comparative musicology (with a focus on Eastern Asia). He has published on early recordings for Welte-Mignon reproducing pianos (*Die Interpretation als Kunstwerk*), theory, history and analysis of musical interpretation, music theory, musical analysis and recent Japanese music history (especially 1880–1930).

Grace Chan (Sydney)/Chris Pickford (London)/
Daniel Yeadon (Sydney)/Neal Peres Da Costa (Sydney)

Carillon Pianola Rolls and the Evolution of Automated Public Music

The carillon tower provides unique insight into the evolution of automated music during the nineteenth century. Pinned wheel systems have existed since the 16th century within the Low Country carillontowers of Europe. They are the distant ancestors of the pianola roll technology that emerged with keyboard innovations of the nineteenth century. These technologies prefigure the MIDI systems that are currently used in many towers today. Pianola systems and the carillon were a natural fit. Like the piano, the carillon has dynamic response and by the nineteenth century a similar range. The bell foundry John Taylor and Co, Loughborough, UK and pianola maker Aeolian-Skinner, USA, formed a successful transatlantic partnership which resulted in many carillon towers in the UK and Australia having pianola systems. The pianola rolls supplied to these towers serve as an important ark -illuminating the musical culture and performance practice norms of the time.

Grace Chan is a carillonneur and organist who has performed on all the significant carillons and pipe organs in Australia. Her research focus is Australian pipe organ, harmonium and carillon culture. Grace plays at the National Carillon Canberra and Sydney War Memorial Carillon. In July 2019, Grace was invited to perform the world premiere of an Australian carillon work at the Palau de la Generalitat Carillon, Barcelona. She is a PhD candidate at the Sydney Conservatorium of Music where she is the recipient of a prestigious organ scholarship awarded for outstanding achievement. Her doctoral research is examining how virtual and digital realms can assist in the sustainability of organ and carillon culture.

Chris Pickford is a bell historian and writer resident in the UK. He is well known for his writings about bells for the *Ringling World* (the weekly magazine for change-ringers). A semi-retired public service archivist by profession, he has encouraged many others in their researches and contributed to a wide range of research projects. Besides his interest in bells he is also very interested in architecture, clocks, stained glass and industrial heritage. For the past twelve years he has been one of the

volunteer archivists at Taylors' bellfoundry in Loughborough, giving him a detailed knowledge of their important archive, and at various times he has also had the opportunity to explore the surviving archives of all the other major UK foundries. He has been an active bell-ringer for over 55 years.

Dr **Daniel Yeadon** is a Lecturer at the Sydney Conservatorium of Music, University of Sydney, where he teaches cello, coaches chamber music, and engages in research into learning, teaching, historical performance practices and collaborations between musicians and scientists. He has a physics degree and is an ambassador for Sydney Nano Institute. Daniel has a love of a wide range of musical genres and is an exceptionally versatile cellist and viola da gamba player, performing repertoire from the Renaissance through to Contemporary. Daniel is a passionate chamber musician, playing regularly with Ironwood, Australian Romantic and Classical Orchestra, Australian Haydn Ensemble and Bach Akademie Australia.

Neal Peres Da Costa → see p. 12

Kai Köpp (Bern)

Historically Informed Restoration. An Archeology of Sound Color

Musical performances preserved on piano rolls offer rare insights into performance traditions of the past. However, the concept of authenticity, which has been attributed to recordings of the Welte company, is challenged by current research, including the series of projects at the Bern Academy of the Arts, and needs to be explored. What was the sound the performers heard in the recording session and what did they recognize as a faithful reproduction of their playing? To answer these questions two aspects are combined that emerged in previous research: the reproducing piano as a historical instrument and contemporary recorded evidence of Welte instruments in performance. It turns out that the piano action – as a user interface – is critical in the handling of the piano during the recording session. Therefore, the recorded information relates to the historical regulation and intonation of the hammers, a field that is largely unknown to academic research. Obviously, these interface conditions need to be reproduced when translating the historical roll information back into sound. A touchstone for these qualities may be the series of recordings Karl Böckisch supervised for the Reichsfunk in 1929/30 that have been partially published by Odeon.

Kai Köpp, professor of music research and interpretation practice at the Bern Academy of the Arts HKB, studied musicology, art history and law in Freiburg (doctorate 2003) and holds a habilitation degree from the University Mozarteum Salzburg. With an additional viola diploma from the Hochschule für Musik Freiburg and three years at the Schola Cantorum Basiliensis he was a member of leading German period ensembles with over 40 recordings. After teaching in Zurich and Trossingen, he joined the HKB in 2008 where he established the research field “Applied Interpretation Research”. The latest of numerous research projects continues through 2024: “Historical Embodiment – Sound Films, Performance Material and Interfaces as Sources for Interpretation Practice of the nineteenth and early twentieth Century”.

Joshua Rapier (Los Angeles)

Reproducing Piano Rebuilding and Regulation: Conditions for Optimal Playback

Reproducing piano rolls were coded to achieve a desired performance. That performance is dependent on both the piano and the player mechanism operating together at an ideal level. This talk will describe details of instrument mechanism and maintenance from the perspective of a professional pneumatic technician with extensive experience rebuilding and restoring reproducing player instruments. The reproducing player mechanism is a sophisticated vacuum operated system that needs to be as airtight as possible. All components need to operate correctly. Playing notes need to be able to operate with even force for a given vacuum level and should be able to play evenly at both low and high vacuum levels with good repetition. The pump needs to be able to pull a sufficient level of vacuum and volume of air at both pianissimo and fortissimo levels running at the correct speed. All pneumatics or bellows need to be airtight and sufficiently flexible. Valves need to seal properly and have correct travel for adequate flow. Consistent and correct roll paper speed is critical for tempo and some types of expression coding.

These and other nuances of reproducing piano regulation and maintenance will be discussed so that pneumatic players can be better understood for their complexities. This talk will aim to inform those working with rolls and players to be sensitive to problems and limitations in roll playback performances.

Joshua Rapier is a pneumatic technician who specializes in the restoration of reproducing pianos and automatic musical instruments. He is widely acknowledged as a leading authority on pneumatic mechanisms and has worked with museums and collections across North America. He is based in Riverside, California where he has restored over one hundred instruments from a variety of systems including Welte Mignon, Ampico, Duo-Art, Artrio Angelus and Art Echo among many others. His instruments can be found in personal and institutional collections around the world and can be heard on numerous published recordings. He was first exposed to player piano restoration at the age of 12, when his family purchased an upright player piano. Shortly after this he met Reese and Terry Banister and apprenticed with them in their restoration business. Joshua is a consultant with Stanford's Player Piano Project, and has appeared at conferences there in 2015 & 2018. He also regularly appears at the conferences of the Automatic Musical Instrument Collectors Association (AMICA).

Denis Hall (London)

Perforated Testimonials. Did They Really Play Like That?

In the heyday of reproducing pianos, accolades were showered on them by the greatest pianists of the age, as being able to play back their recorded interpretations with complete fidelity. Ever since Denis Hall became interested in these instruments, he remained doubtful whether they could really perform to such a degree of accuracy, or whether these masters of the keyboard were influenced by the fees that the roll companies offered. Did they actually hear their playing being reproduced with all the

mannerisms and subtleties of touch that they intended?

In this presentation, Denis Hall will show that the reproducing piano really could play back the artists' interpretations with remarkable fidelity, and he will demonstrate that the pianistic giants of the first twenty-five years of the last century did not exaggerate when writing their testimonials.

Denis Hall has been interested in recordings of pianists since his schooldays, when he could buy new 78 rpm records of his keyboard heroes. He first became aware of reproducing pianos in the early 1960s, and he bought his first Duo-Art in 1965. These days he spends much of his time in retirement maintaining his own reproducing pianos in a condition which he hopes does justice to the virtuosi of 100 years ago who entrusted their art to the piano roll medium. For many years Denis has transferred 78 recordings to LP and CD, particularly for the Pearl label. With Rex Lawson and other friends, he co-founded the Pianola Institute in 1984, and he has written extensively in the *Pianola Journal*.