

# Curriculum Vitae

Name: Dario Sanfilippo

Birthday: 28th of June 1983

Country of birth: Italy

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## Professional experience

(June 2020 - present) researcher (1-bit audio, DSP, music complex adaptive systems, audio programming) – Rotting Sounds (Music and Performing Arts University), Vienna, Austria.

(Sept. 2018 - present) researcher (1-bit audio, DSP, music complex adaptive systems, audio programming) – AAPU, Vienna, Austria.

(Jan. 2005 - present) composer and performer – freelance.

(June 2019 - Sept. 2019) researcher (1-bit audio, DSP, music complex adaptive systems, audio programming) – The University of Music and Performing Arts, Vienna, Austria.

(Dec. 2018 - March 2019) researcher (performance and composition with complex adaptive systems) – Rotting Sounds (Music and Performing Arts University), Vienna, Austria.

(Jan. 2016 - May 2018) teaching fellow (music, DSP, audio programming) – The University of Edinburgh.

(Jan. 2016 - April 2016) teaching fellow (DSP, audio programming) – Abertay University, Dundee.

(Dec. 2014 - Aug. 2015) researcher (1-bit audio, DSP, audio programming) – AAPU, Vienna, Austria.

(May 2015 - July 2015) researcher (1-bit audio, DSP, audio programming) – The University of Music and Performing Arts, Vienna, Austria.

## Education

(2015 - 2019) PhD in Computer Music – The University of Edinburgh, UK. Thesis title: “*Complex musical behaviours via time-variant audio feedback networks and distributed adaptation: a study of autopoietic infrastructures for real-time performance systems.*” Supervisors: Martin Parker, Michael Edwards, Michael Newton.

(2011 - 2013) Master's Degree (distinction) in Music and New Technologies – Conservatory of Naples, Italy. Thesis title: “*Aesthetics, characteristics, and implementation of music feedback systems.*” Supervisor: Agostino Di Scipio.

(2007 - 2011) Bachelor's Degree (distinction) in Music and New Technologies – Conservatory of Trapani, Italy. Thesis title: “*Human-machine interaction performance with emergent music systems.*”

## Language skills

English: fluent/advanced.

Italian: native speaker.

Spanish: beginner.

French: beginner.

German: beginner.

## Research interests and expertise

Music performance, composition, and improvisation; lecturing and workshop leading; audio engineering and audio programming; neural networks and machine learning for audio.

Sound and music theory; complex adaptive systems; evolutionary behaviours; cybernetics; feedback systems; artificial life and artificial intelligence; autonomous systems; multi-bit and one-bit digital signal processing; information processing, feature extraction, and music information retrieval; acoustics, psychoacoustics and acoustic ecology.

C, C++, Faust, Lisp, Lua, Python, and Pure Data programming.

## Peer-reviewed journal articles

(2020 – pending peer review) Sanfilippo, Dario – *Distributed adaptation in complex systems for the synthesis of sound and music*. Computer Music Journal, MIT Press.

(2020 – pending peer review) Sanfilippo, Dario – Time-domain algorithms for low-level and high-level audio information processing. Computer Music Journal, MIT Press.

(2019) Di Scipio, Agostino and Sanfilippo, Dario – *Defining ecosystemic agency in live performance. The Machine Milieu project as practice-based research*. Array Journal, International Computer Music Association.

(2018) Sanfilippo, Dario – *Time-variant infrastructures and dynamical adaptivity for higher degrees of complexity in autonomous music feedback systems: the Order from Noise (2017) project*.

Music/Technology Journal, Firenze University Press.

(2013) Sanfilippo, Dario and Valle, Andrea – *Feedback Systems: an Analytical Framework*. Computer Music Journal (CMJ 37:2 – Summer 2013), MIT Press.

(2013) Sanfilippo, Dario – *Turning Perturbation into Emergent Sound, and Sound into Perturbation*. Interference Journal.

(2012) Sanfilippo, Dario – *Osservare la Macchina Performante e Intonare l'Ambiente: Microphone di David Tudor*. Le Arti del Suono Review.

## Peer-reviewed conference papers

(2020) Sanfilippo, Dario – *The Edge of Chaos library: a Large Set of Faust Functions for the Implementation of Music Complex Adaptive Systems*. Proceedings of the second International Faust Conference, Saint Denis, France.

(2020) Bovermann, Till and Sanfilippo, Dario – *Creative Use of Bitstream DSP in Faust*. Proceedings of the second International Faust Conference, Saint Denis, France.

(2017) Sanfilippo, Dario and Di Scipio, Agostino – *Environment-Mediated Coupling of Autonomous Sound-Generating Systems in Live Performance: An Overview of the Machine Milieu Project*. Proceedings of the 14th Sound and Music Computing Conference, Espoo, Finland.

(2016) Clutterbuck, Tristan, Mudd, Tom, and Sanfilippo, Dario – *A Practical and Theoretical Introduction to Chaotic Musical Systems*. Proceedings of the International Conference on Live Interfaces conference.

(2012) Sanfilippo, Dario and Valle, Andrea – *Towards a typology of feedback systems*. Proceedings of the 38th International Computer Music Conference, Ljubljana, 2012. (Best paper award.)

(2012) Sanfilippo, Dario and Valle, Andrea – *Heterogeneously coupled feedback systems: the |. Project*. Proceedings of the 38th International Computer Music Conference, Ljubljana, 2012.

(2012) Sanfilippo, Dario – *LIES (distance/incidence) 1.0: a human-machine interaction performance*. Proceedings of the 19th Colloquium of Musical Informatics, Trieste, 2012.

## CD releases

(2015) SEC\_/Dario Sanfilippo – *Fame d'Aria*. Tsuku Boshi recordings, France.

(2014) V. A. – *Sculptures Musicales and Other Devices*. Die Schachtel recordings, Italy.

(2010) V. A. – *Hopeful Monster*. Die Schachtel recordings, Italy.

(2009) V. A. – *Hums*. Bowindo recordings, Italy.

(2009) Dario Sanfilippo – *Premio Malattia*. Creative Sources recordings, Portugal.

## Guest lectures, presentations, and talks

(March 2020) IEM, Institute for Electronic Music and Acoustics – Graz, Austria.  
(May 2019) Sibelius Academy – Helsinki, Finland.  
(April 2018) Sibelius Academy – Helsinki, Finland.  
(Nov. 2016) City Art Centre – Edinburgh.  
(May 2016) Wee Red Bar – Edinburgh.  
(April 2015) University of Applied Sciences – Salzburg, Austria.  
(Feb. 2015) Music and Theatre University – Hamburg, Germany.  
(Nov. 2013) Institute of Sonology – The Hague, The Netherlands.  
(Nov. 2013) Goldsmiths University – London, UK.  
(May 2013) Logos Foundation – Ghent, Belgium.  
(Oct. 2013) IRZU, Institute for Sonic Arts Research – Ljubljana, Slovenia.  
(May 2013) Music and Performing Arts University – Vienna, Austria.  
(May 2013) IEM, Institute for Electronic Music and Acoustics – Graz, Austria.  
(May 2013) Logos Foundation – Ghent, Belgium.  
(Nov. 2012) Colloquium of Musical Informatics – Conservatory of Trieste, Italy.  
(Sept. 2012) International Computer Music Conference – Ljubljana, Slovenia.  
(April 2012) INTER/actions symposium – Bangor University, UK.  
(Dec. 2011) L'Orientale University – Naples, Italy.  
(Dec. 2011) Digital Music Research Network – Queen Mary University of London, UK.

## Workshops

(March 2020) Audio programming in Faust – The University of Edinburgh.  
(May 2017) Systemic performance and adaptive signal processing in Pure Data – The Uni. of Edinburgh.  
(May 2016) Musical complex systems in Pure Data – The University of Edinburgh.  
(Nov. 2013) Music feedback systems in Pure Data – nnnnn space, London, UK.  
(Nov. 2013) Music feedback systems in Pure Data – Villa K space, The Hague, The Netherlands.  
(May 2013) Music feedback systems in Pure Data – NK space, Berlin, Germany.

## Awards and grants

(March 2019) Austrian Research Promotion Agency (FFG) grant – Vienna, Austria.  
(Sept. 2015 - Sept. 2018) Thomas Laing Reilly full-time PhD Scholarship – University of Edinburgh, UK.  
(March 2015) Austrian Research Promotion Agency (FFG) grant – Vienna, Austria.  
(Jan. 2014) Artistic grant for the development of chaotic oscillators in Pure Data – University of Toronto.  
(Sept. 2012) Best Paper Award – Int. Computer Music Association, USA. (ICMC2012, Ljubljana.)

## Commissions

(June 2019) Performance of “*Order from Noise*” and lecture on complex systems for the International Society for Contemporary Music (IGNM), Vienna, Austria.

(Oct. 2015) Autonomous music software for the theatre piece “*Loretta Strong*” – Ultima Necat Company, Nancy, France.

(Oct. 2014) Composition “*Ice/Fire*” (ca. 42 minutes) for Kunst Radio – Vienna, Austria.

(May 2010) sound installation “*Sea of Illusion*” for the Municipality of Trapani, Italy.

## Live performance (selected)

6th of June 2019 – solo and duo with Philip Leitner at Echoraum, Vienna. (Commissioned by IGNM - International Society for Contemporary Music.)

29th of March 2019 – solo at Music and Performing Arts University, Vienna.

18th of April 2018 – solo at the Sibelius Academy, Helsinki.

26th of Oct. 2017 – solo at The Biscuit Factory, Edinburgh.

26th of March 2017 – duo with Gael Leveugle at Sidération festival, Paris.

10th of Oct. 2016 – duo with SEC\_ at Cafè Oto, London.

28th of March 2016 – solo at Edinburgh College of Art.

23rd of April 2015 – duo with SEC\_ at Divadlo29, Pardubice, Czech Republic.

5th of Feb. 2015 – solo at Music and Theatre University of Hamburg, Germany.

21st of June 2014 – trio with SEC\_ and Jean-Philippe Gross, French Institute of Naples.

14th of Nov. 2013 – duo with Tim Hodgkinson at Goldsmiths University, London, UK.

15th of Oct. 2013 – solo at EarZoom Festival, Ljubljana, Slovenia.

28th of Aug. – live sound installation at Flussi Festival, Avellino, Italy.

23rd May 2013 – solo at Logos Foundation, Ghent, Belgium.

21st May 2013 – solo at Galerie Mario Mazzoli, Berlin.

9th Dec. 2012 – Homage to Cage - a realisation of Sculpture Musicales with Salvatore Carannante, Chiara Mallozzi and Stefano Silvestri at Castel Sant'Elmo, Naples.

23th Nov. 2012 – solo at Auditorium Casa della Musica, Trieste, for the Colloquium of Musical Informatics.

11th Sept. 2012 – solo at Španski Borci, Ljubljana, for the International Computer Music Conference.

22th May – live sound installation at Le Forme del Suono festival - Conservatory of Latina, Italy.

4th May 2012 – solo at Conservatory of Naples, Italy.

10th-12th April 2012 – live sound installation at INTER/actions symposium, Bangor University, UK.

22th Nov. 2011 – solo at Audio Art Festival, Bunkier Sztuki, Krakow, Poland.

8th July 2011 – solo at C. Pollini Conservatory, Sound and Music Computing Conference, Padova, Italy.