

# Diemo Schwarz

Independent Musician, Sound Artist, Composer, Improviser  
Researcher and Developer, Sound–Music–Movement Interaction Team (ISMM), Ircam



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Born: April 1, 1969 in Saarbrücken, Germany  
Nationality: German  
Languages: German, English, French  
Married, 1 daughter (age 8)

## Professional Experience

- since 2012 member of ONCEIM improviser's orchestra
- since 2008 creation and development of sound installations, solo and with Cécile Babiolo, Franck Leibovici, Christian Delecluse, Ianis Lallemand
- since 2006 independent improvising musician with CataRT live-recording, projects with Frédéric Blondy, Richard Scott, Gael Mevel, Pascal Marzan, Jean-Sebastien Mariage, Massimo Carrozzo, Nicolas Souchal
- since 2004 Researcher and Developer, Sound–Music–Movement Interaction Team (ISMM), STMS Lab UMR 9912, Ircam–CNRS–Sorbonne Université
- 1992–1997 Developer at *ISA Informationssysteme GmbH*, Stuttgart

## Education

- 2015 MOOC *Data Analysis and Statistical Inference*, Duke University
- 2014 MOOC *Machine Learning*, Stanford University
- 1999–2004 University of Paris 6 Pierre et Marie Curie (UPMC) – PhD in Computer Science applied to Music, January 2004
- 1993–1994 3rd year Computer Science, University of Kent at Canterbury, UK
- 1991–1997 University of Stuttgart, Germany – Master of Science Diploma in Computer Science (major subject) and Computational Linguistics (minor subject)

## Teaching

- 2019 One-week music technology workshop, NOTAM, NO
- 2018 5-day Workshop *Composing with CataRT* Darmstädter Ferienkurse 2018
- 2017 DAAD Edgar Varèse guest professorship for computer music, TU Berlin, DE
- 2016–2020 *Science and Music* option, Ecole Centrale de Nantes, FR
- 2016 Ircam Academy Computer Music Class, *Manifeste*
- 2011 Masterclass *Spectral Sound Processing*, STEIM, NL
- 2008–2012 One-week Max technology workshops at Goldsmith's (uk), Ircam (fr), STEIM (nl), BEK (no), NOTAM (no), Edinburgh (uk)

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## Selected Discography

- 2019 Quartet *Métamorphée*, CD *Métamorphée*, label *Musiques Demesurées*  
2017 Septet *Le cercle*, CD *Le 6e rêve de Nathanaël*, label *Rives*  
2015 ONCEIM/Stephen O'Malley, vinyl *Gruidés*, label *DDS*  
2015 ONCEIM/Bertrand Denzler, CD *Morph*, *Confront Recordings*  
2012 Duo with Victoria Johnson, CD *Suspended Beginnings*, *Farbror Melker Records*

## Selected Artistic Projects

2020–2012 Orchestra ONCEIM, improvisations and pieces by John Tilbury, Stephen O'Malley, Martin Tétreault, Karls Naegelen, Jerome Noetinger and others at *Les rendez-vous contemporains* 2012–2016, festival *CRAK* 2013–2016, festival *Densités* 2015, Insub festival, Geneva 2016, festival *Météo*, Mulhouse 2017, festivals *Sacrum Profanum* and *Mózg*, Poland 2017, *Le Guess Who?*, Utrecht 2018, *Wiener Festwochen* 2020.

2019 *Music–Mind–Movement* concert with Grace Leslie (brainwaves), France–Atlanta festival, Georgia Tech, USA

2019 *Sature Day* concert on France Musique radio with Michael Nick, Yaping Wang

2019–2017 Residency, concert, CD with *Métamorphée*, festival *Musiques Démesurées*, Clermont-Ferrand.

2018–2015 Solo concert *Playing the Sound Space*, Prisms Contemporary Music Festival *Boulez Legacies*, Phoenix, Arizona, *Electric Spring* festival, Huddersfield, UK 2016, International Computer Music Conference, Utrecht 2016, *digitlzmir* festival, Izmir, Turkey 2018.

2018–2011 *Le lieu d'un autre centre* (with Frederic Blondy), Sound Museum, St. Petersburg 2018, Earzoom festival, Ljubljana 2016, festival *Densités*, Fresnes-en-Woevre 2015, festival *Les Urbaines*, Lausanne 2013, Hyperion, London 2012, Paris 2011,.

2017 Cine-concert *Metropolis*, with Gaël Mevel, Espace Jean Vilar, Arcueil

2017 percussion for *Occam Ocean* by Eliane Radigue with ONCEIM at *Sacrum Profanum* festival, Poland.

2017–2016 Music for reading *Wolfson* (with Denis Lavant, Anne Ropers), festival *Court de Theatre* 2016, *La semaine du bizarre* 2017, theatre Berthelot, Montreuil.

2017–2016 Septet "Le cercle" by Gaël Mevel, Maison de la culture du Japon, Paris, 2016, La maison en bois, Abbéville-la-Rivière 2017, CD *Le 6e rêve de Nathanaël* on label *Rives* 2017.

2017–2012 Installation DIRT! Dirty Tangible Interfaces (with Matthieu Savary), Maison des Petits, Le 104, Paris, New Interfaces for Musical Expression (NIME), London 2014, Centre Pompidou, Abbaye de Royaumont 2017.

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2016–2013 Installation Inner Space (with Christian Delecluse), Le Cube, Issy les Moulineaux 2013, Mapping Festival, Geneva 2014, DA-Fest, Sofia, Bulgaria 2015, Nuit Blanche, Paris 2016

2016–2013 Ensemble Soli X llos, festival Imprudences, Paris.

2015 vinyl Gruidés (with ONCEIM, Stephen O'Malley), label DDS.

2015 CD Morph (with ONCEIM, Bertrand Denzler), Confront Recordings.

2014–2009 Xe-Rocks Installation (Cecile Babiote), Espace culture et multimédia Gantner, Bourgogne 2009, New Adventures in Sound Art (NAISA), Toronto 2014.

2013 P.A.N.D.A. mini-opera pour non-musiciens (with Franck Leibovici), Printemps des Laboratoires d'Aubervilliers 2013, Dairy Art Centre, London 2013.

2013–2012 Music and motorised scenography for choreography Blanc Brut (Cie. Atmen, Françoise Tartinville, Frederic Blondy), Étoile du Nord, Paris 2012, 2013, Le Cube, Issy les Moulineaux 2012.

2012 Installation ACCLRTR (with Ianis Lallemand), festival Printemps de la Culture, Orsay.

2011 Laïka est morte pour l'Europe (with Frédéric Blondy, Marion Delage de Luget et Benoît Géhanne, video), Saint-Merri, Paris.

2010–2009 Installation Grainstick (Pierre Jodlowski), Agora Festival 2009, Cité des Sciences, Paris, 2010.

2008 Silver Sounds exhibition soundscape, Naughton Gallery, Belfast (2008 Times Higher Education Award for Excellence and Innovation in the Arts)

## Selected Publications

[Schwarz20] Diemo Schwarz, Wanyu Liu, Frédéric Bevilacqua. A Survey on the Use of 2D Touch Interfaces for Musical Expression. *New Interfaces for Musical Expression (NIME)*, Jul 2020, Birmingham, United Kingdom. <hal-02557522v2>

[Guellai19] Bahia Guellai, Annabel Callin, Frédéric Bevilacqua, Diemo Schwarz, Alexandre Pitti, et al.. Sensus Communis: Some Perspectives on the Origins of Non-synchronous Cross-Sensory Associations. *Frontiers in Psychology*, 2019, 10. <hal-02450781>

[Bevilaqua18] Frederic Bevilacqua, Olivier Houix, Nicolas Misdariis, Patrick Susini, Diemo Schwarz. MIMES : outil de prototypage et d'exploration pour la création sonore. Conférence francophone sur l'Interaction Homme-Machine, Oct 2018, Brest, France.

[Schwarz17a] Diemo Schwarz, Grégoire Lorieux, Emmanuelle Lizère, Ariadna Tarrès, Frédéric Bevilacqua. A Topo-Phonic Table for Tangible Sonic Interaction. *International Computer Music Conference (ICMC)*, Oct 2017, Shanghai, China. <hal-01575290>

[Bevilaqua16] Companion to Embodied Music Interaction, chapter *Designing action-sound metaphors using motion sensing and descriptor-based synthesis of recorded sound materials*. Routledge 2016.

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[Schwarz15] Diemo Schwarz, Sean O 'Leary. Smooth Granular Sound Texture Synthesis by Control of Timbral Similarity. Sound and Music Computing (SMC), Jul 2015, Maynooth, Ireland.

[Schwarz14] Diemo Schwarz and Baptiste Caramiaux. Interactive Sound Texture Synthesis through Semi-Automatic User Annotations. Lecture Notes in Computer Science. Springer International Publishing, 2014. doi: 10.1007/978-3-319-12976-1-23.

[Schwarz13] Schwarz Diemo, Interacting with a Corpus of Sounds. SI13: NTU/ADM Symposium on Sound and Interactivity. Singapore : Novembre 2013 keynote speech

[Savary13] Savary Matthieu, Schwarz Diemo, Pellerin Denis, Massin Florence, Jacquemin Christian, Cahen Roland, Dirty Tangible Interfaces: Expressive Control of Computers with True Grit. CHI. Paris : Avril 2013, p. 2991-2994

[Schwarz11c] Schwarz, D., « State of the Art in Sound Texture Synthesis », Digital Audio Effects (DAFx), Paris, 2011, pp. 221-231

[Cahen08a] Cahen R., Jacquemin C., Schwarz D., Navigation et composition dans un univers graphique 3D de grains sonores. Sophie Chauvin. Information & Visualisation: Enjeux, recherches et applications, Toulouse : Cépaduès Editions. 2008, p. 243-268

[Rodet07b] X. Rodet, Schwarz, D., Spectral Envelopes and Additive+Residual Analysis-Synthesis. James W. Beauchamp. Analysis, Synthesis, and Perception of Musical Sounds. The Sound of Music. New York, Springer. 2007, p. 175-227

[Schwarz07a] Schwarz, D. « Corpus-Based Concatenative Synthesis, assembling sounds by content-based selection of units from large sound databases», IEEE Signal Processing, Mars 2007, vol. 24, n° 2, p. 92-104

[Schwarz06b] Schwarz Diemo, Concatenative Sound Synthesis: The Early Years. Journal of New Music Research. Mars 2006, vol. 35, n° 1, p. 3-22

[Orio03] Orio Nicola, Lemouton Serge, Schwarz Diemo, Schnell Norbert, Score Following: State of the Art and New Developments. New Interfaces for Musical Expression (NIME). Montreal : Mai 2003

[Orio01] Orio Nicola, Schwarz Diemo, Alignment of Monophonic and Polyphonic Music to a Score. International Computer Music Conference (ICMC). Havana : Septembre 2001

[Schwarz00] Schwarz Diemo, A System for Data-Driven Concatenative Sound Synthesis. Digital Audio Effects (DAFx). Verona : Décembre 2000, p. 97-102