# CV Øyvind Brandtsegg

Øyvind Brandtsegg is a composer and performer working in the fields of algorithmic improvisation and sound installations. His main instrument as a musician is Hadron Particle Synthesizer, ImproSculpt and Marimba Lumina. ImproSculpt is an instrument for live sampling and realtime composition, built by Brandtsegg. Hadron is a very flexible realtime granular synthesizer. In addition to his own work as a composer and musician, he has also done programming for other artists and for commercial audio applications.

#### Education

- 1993 1997: Jazz/Improvisation/Composition studies at the Jazz dept, NTNU.
- 1997 1998: Music technology, NTNU.
- 2005: Workshop in Algorithmic Composition at University of California, Santa Cruz, USA. With David Cope, Peter Elsea, Paul Nauert a.o.
- 2004 2008: PhD equivalent Scholarship (Kunststipendiat) under the program "Program for Research Fellowships in the Arts".

# **Teaching**

- 1998: Course in Max programming for NTNU.
- 1999: Course "Creative use of music technology" master level, NTNU.
- 2000: Presentations and talks at Berklee College of Music (Boston, USA) and Columbia University (New York, USA). Subjects: "Interactive Composition & Improvisation using Alternate Controllers and Max" and "Realtime Csound: Issues of Sound Design and Performance".
- 2002 2005: Courses in Max and Csound at the Music Conservatory of Trondheim, NTNU.
- 2002 2005: Ensemble teaching with "ImproSculpt" at the jazz dept, NTNU.
- 2003 : Talks/presentations on ImproSculpt, Csound, particle synthesis and own artistic works at conferences. Ultima/NOTAM, NTNU, Norsk Akustisk Selskap, Studiemøtet for elektronikk og data, Trondheim Matchmaking, Sounds Electric.
- 2003: Course in Csound and audio synthesis for NRK (Norwegian National Broadcasting).
- 2004: Workshops for Kunstakademiet i Trondheim and Norsk Lydskole.
- 2008: Lecture/Workshop in Csound at Hochschule f
  ür Musik und Theater (Hannover, Germany).
- 2008 : Music technology at NTNU, subjects: DSP, Technology and creativity, Audio installations.
- 2008 : Ensemble improvisation at the Jazz dept, NTNU.
- 2010 : Professor of Music Technology at NTNU

# Writing:

- 2005: (ØB) A Sound Server Approach to Programming in Csound Part 1 General Principles. www.csounds.com <a href="http://www.csounds.com/journal/2005fall/index.html">http://www.csounds.com/journal/2005fall/index.html</a> (Iv 2009/01/30).
- 2006: (ØB) A Sound Server Approach to Programming in Csound Part 2 An Example Application Using the Csound API. www.csounds.com <a href="http://www.csounds.com/journal/2006spring/index.html">http://www.csounds.com/journal/2006spring/index.html</a> (Iv 2009/01/30).
- 2007: (Anna Trifonova, Øyvind Brandtsegg, Letizia Jaccheri). Software Engineering in an Artistic Project: ImproSculpt Case Study. Tech-Report.
- 2007: (Yi, Steven; Brandtsegg, Øyvind): Thoughts and Experiences with The Flyndre: An Interview with Øyvind Brandtsegg. <a href="http://www.csounds.com/journal/issue5/index.html">http://www.csounds.com/journal/issue5/index.html</a> (Iv 2009/01/30).
- 2008: (ØB) Project documentation for PhD-equivalent artistic research project. <a href="http://oeyvind.teks.no/results/">http://oeyvind.teks.no/results/</a> (lv 2009/01/30).
- 2008: (ØB) Stykkevis og delt? 11 i naturen. Ratatosk (Trondheim) 2008; Volum 1-2. s. 32-34.
- 2008: (ØB) A minimal realtime algorithmic system: "Barebones", <a href="http://www.csounds.com/journal/issue9/index.html">http://www.csounds.com/journal/issue9/index.html</a> (Iv 2009/01/30).
- 2008: (Trifonova, Anna; Brandtsegg, Øyvind; Jaccheri, Letizia). Software engineering for and with artists: a
  case study. I: 3rd ACM International Conference on Digital Interactive Media in Entertainment and Arts
  DIMEA 2008. ACM Press 2008 ISBN 978-1-60558-248-1.
- 2011: (Ø.Brandtsegg, S.Saue, T.Johansen) Particle synthesis a unified model for granular synthesis. Linux Audio Conference, Maynooth. <a href="http://lac.linuxaudio.org/2011/papers/39.pdf">http://lac.linuxaudio.org/2011/papers/39.pdf</a>
- 2011: (Ø.Brandtsegg, S.Saue, T.Johansen) A modulation matrix for complex parameter sets. New Interfaces for Musical Expression (NIME) conference, Oslo. <a href="http://www.nime2011.org/proceedings/papers/G27-Brandtsegg.pdf">http://www.nime2011.org/proceedings/papers/G27-Brandtsegg.pdf</a>
- 2011: (Ø.Brandtsegg, S.Saue) Performing and composing with the Hadron Particle Synthesizer. Forum Acusticum conference, Aalborg. Available in Forum Acusticum proceedings.
- 2011: (Ø.Brandtsegg, K.Ervik) Creating reverb effects using granular synthesis. 1st Csound Conference, Hannover. <a href="http://www.incontri.hmtm-hannover.de/fileadmin/www.incontri/Csound\_Conference/Ervik\_Brandtsegg2.pdf">http://www.incontri.hmtm-hannover.de/fileadmin/www.incontri/Csound\_Conference/Ervik\_Brandtsegg2.pdf</a>
- 2012: (Ø.Brandtsegg, et.al) The development of an online course in DSP eartraining. Proceedings of the 15th Int. Conference on Digital Audio Effects (DAFx-12), Audio Lab, University of York 2012 ISBN 978-0-9573906-0-7
- 2013: Brandtsegg, Ø., Saue. S: "Experiments with dynamic convolution techniques in live performance". In Proceedings of the Linux audio Conference (LAC2013), Graz, Austria, 2013
- 2015: Brandtsegg, Øyvind; Tidemann, Axel. "[self.]: an Interactive Art Installation that Embodies Artificial Intelligence and Creativity". Proceedings of the 2015 ACM SIGCHI Conference on Creativity and Cognition (C&C '15). ACM Digital Library 2015 ISBN 978-1-4503-3598-0. p. 181-184
- 2015: Brandtsegg, Øyvind; Tidemann, Axel. "On audio processes in the Artificial intelligence [self.]". International Csound Conference, St.Petersburg
- 2015: A TOOLKIT FOR EXPERIMENTATION WITH SIGNAL INTERACTION. Proc. of the 18th. Int. Conference on Digital Audio Effects (DAFx-15), Trondheim, Norway, Nov 30 - Dec 3, 2015
- 2016: (with V.Lazzarini, J. Fitch, S. Yi, J. Heintz, I. McCurdy) "Csound: a sound and music computing system. Springer
- 2018: Brandtsegg, Lazzarini, Saue; Live convolution with time varying filters. Applied sciences.
- 2018: Brandtsegg, Øyvind; Engum, Trond; Wærstad, Bernt Isak. Working methods and instrument design for cross-adaptive sessions. Proceedings of the International Conference on New Interfaces for Musical Expression.
- 2018: Brandtsegg, Øyvind; Reiss, Joshua D. Applications of Cross-Adaptive Audio Effects: Automatic Mixing, Live Performance and Everything in Between. Frontiers in Digital Humanities. vol. 5.
- 2020: Brandtsegg, Øyvind. An interface to an interface to an interface. Proceedings of the International Conference on Live Interfaces (Proceedings of ICLI).
- 2020: Brandtsegg, Øyvind. Verktøy som materiale. VIS Nordic Journal for Artistic Research.
- 2020: Brandtsegg, Øyvind. Adaptive and Crossadaptive Strategies. In: Ubiquitous Music Ecologies. Eds. Victor Lazzarini, Damián Keller, Nuno Otero, Luca Turchet. Routledge 2020 ISBN 9780367242657. s. 190-213
- 2021: Brandtsegg, Øyvind and Murray-Leslie, Alexandra Nicki. FEEDBACK: Vibrotactile Materials Informing Artistic Practice. In: The Routledge International Handbook of Practice-Based Research. Ed. Craig Veir. Routledge 2021 ISBN 9780367341435.

#### Musician

- 1985 1991: Drummer in local rock bands.
- 1993 2003: Vibraphone and electronics with jazz/contemporary-/pop trio "Krøyt". With Kristin Asbjørnsen (Vocals) and Thomas Dahl (Guitar). Video rotation of the song "Shall I forget" on MTV.
- 1994 1996: Vibraphone/Marimba duo with Rune Heggli.
- 1994 1997: Jazz trio "Brandtsegg/Eilertsen/Nilssen-Love", with bassist Mats Eilertsen and drummer Paal Nilssen-Love. "Free"-jazz influenced by "classical" contemporary music, 12-toneimprovisation.
- 1998: musician at Trøndelag Teater, "Brødrene Løvehjerte".
- 1998 2000: Vibraphone and electronics in the trio "Spacebopcircus", with Wetle Holte (Wibutee), and Rune Brøndbo (Sternklang).
- 2002 2005: Live electronics with Live Maria Roggen solo project.
- 2004: Studio work for Kristin Asbjørnsen, music for motion picture "Factotum" by Bent Hamer.
- 2006: Touring Europe with Norwegian group Motorpsycho.
- 2006 2007: Project "Kanon", with Thomas T. Dahl, Mathias Eick, Arve Henriksen, Kenneth Kapstad, Mattis Kleppen, Hans Magnus Ryan, Bent Sæther.
- 2006 : The group "Aleph" with Kenneth Kapstad, Stian Westerhus, Mattis Kleppen and Ingrid Lode. The group acts as a collective, sometimes instantiated as duo or trio configurations, Brandtsegg is the only permanent member.
- 2008: Worked with Oslo Sinfonietta as ImproSculpt performer, collaboration with the New Music Composer's Group in Norway.
- Vibraphone and electronics studio work (see discography).
- 2010 : Started the ensemble T-EMP based on music technological challenges in free improvisation
- 2011: Concerts at the Linux Audio Conference, New Interfaces for Musical Expression, Csound conference ++.
- 2012: Concerts with T-EMP, Dublin, Trondheim, Oslo
- 2013: Concerts for player piano and midi controlled church organ, Conlon Nancarrow studies.
- 2013: "Feedback piece", performance at the Linux Audio Conference in Graz
- 2013: Concerts with T-EMP, Härnösand, Trondheim (with David Moss)
- 2013: "Feedback piece" performance at Intl. Csound Conference, Berklee, Boston, USA
- 2014 : BRAK-RUG with Maja S.K. Ratkje and Siv Kjenstad.
- 2018-2021: Collaborations with Alex Murray-Leslie and Chicks on Speed. Feedback instruments.
   Performances at Ars Electronica, Only Connect, and others.
- 2018 Nancarrow Biotope orchestrations and improvisations for Pipe Organ, Disklavier and computer
- 2021-: Collaboration with Jeremy Welsh, Tijs Ham, Apichaya Wanthiang, Trond Lossius.
   Exhibitions and performances
- 2022: Collaborations with Erlend Leirdal: KRAFT. Kinetic sculpture driven by tidal water.

#### Composer

- 1994-2001: Compositions for "Krøyt", released on "Sub" (1997), "Low" (1999), "Body Electric" (2001) and "One heart is too small" (2001). Collective composition within the ensemble.
- 1995 1997: music for dance performance "Sigrid", a 90-minute ballet based on Vera Henriksens trilogy on "Sigrid på Egge". Choreographer: Ingri Angell Petersen. Performed 1997, connected to Trondheim's 1000 year jubilee.
- 1994: Strings arrangement on "Motorpsycho" CD: "Timothy's Monster".
- 1997: Composition "Follow Me" for Vibraphone, Computer and DiskClavier. Released on "Max Users Group Sampler CD" (1998).
- 1997: "every MOVE you make", interactive dance performance, sensor technology used to capture movement and transform this into musical parameters. With choreographer Susanne Rasmussen.
- 1999: "Fragmental", a continuation of "every MOVE ..."., interactive dance. Brandtsegg did composition, programming, and sensor system design for the performances "every Move..." and "Fragmental". Choreographer: Susanne Rasmussen, Video: Paul A.N.Grendstad.
- 1999: Composed music for Teater Visuells production "48 timer", puppet theatre.

- 2000/2001: Collaboration with Arne Nordheim and Soundscape Studios on audio installations for Realfagsbygget NTNU Trondheim, and "Dråpen" at Bekkelaget Renseanlegg in Oslo.
- 2001: Music for dance, "Silent Air". Choreographer: Kari Øyen.
- 2002: Commissioned work "Delta" for Choir and Computer, for Midt-Norsk Solistensemble. Lyrics by Marte Huke.
- 2002: "NYC Delta ImproSculpt", in collaboration with New York based musicians Russ Johnson, Zeena Parkins, Karthik Swaminathan, Bill Brovold, Ken Butler and Trevor Exter.
- 2002: "Raudbergbamsen" (The Bear of the Red Mountain), a piece based on observation data of a Brown Bear through 4 years. Written as part of a performance for an international Brown Bear Conference in Steinkjer 2002. The performance was a collaboration with Bengt Carling, Njål Ølnes and Marcus Edvardsen.
- 2002-2005: Arrangements and programming for Live M.Roggen solo project.
- 2003: "Lydløypa" (Sound path), collaboration with Christian Eggen on a multi-part interactive audio installation in Frognerparken, Oslo.
- 2003: "Expand" for el.violin and computer. Commissioned by performer Victoria Johnson for "Autunnalefestivalen" in Bergen.
- 2003: "CrHap3", remix of a memory dump from a ProTools system crashing. Written for release on the compilation "Crashing Happy" (BEK 2006), with Francisco López, Espen Sommer Eide, Jørgen Larsson, Thorolf Thuestad, Asbjørn Blokkum Flø and Ulf Knudsen.
- 2003: Jingle for TV show "Newton" on NRK1.
- 2003: "Traffic" remix of a recording of a Göteborg tram. For an off-conference concert organized by John ffitch under ICMC in Singapore.
- 2004: "Hvor i rømmegrøten er melkeveien?" for Trio Alpaca (piano/violin/cello/live-electronics). Contemporary music and theatre.
- 2005: Strings arrangement for CD "Chronicles", Jon Heitmann and Mark Gregory.
- 2005-: Various works composed around the realtime composition features of the software ImproSculpt4.
- 2006: Commissioned work "Kanon" for 7-piece rock improvisation group. First performance at Trondheim Jazzfestival 2006. Also performed under Molde Intl Jazzfestival 2007.
- 2006: Audio installation: "Flyndre", in Muustrøparken, Inderøy, build on an existing sculpture by Nils Aas. Opened September 2006, continuous play until September 2016.
- 2007: Audio installation: "Irrganger" (Labyrinths) at Steinkjer College, in collaboration with Viel B.Andersen.
- 2008: Sound design for computer game demo "tisu". AbleMagic, Trondheim.
- 2008: Audio installation "Rømmegrøten" at Trondheim Kunstmuseum.
- 2008: Commissioned work: "ultimafeed\_08" for Solo percussion and electronics. Performed at Ultima Contemporary Music Festival.
- 2008: Commissioned work: "Elektroakustiske overledninger og intermezzi" for Sinfonietta and live electronics. Performed by Oslo Sinfonietta 2008.
- 2008-: Collaboration with Agraff A/S architects, design of architectural space and acoustics/sound design for Spa "Fjellvære" at Røros. Preproduction phase finished, start of building phase planned fall 2009
- 2011: Composition for «Skarnsundbrua» (Skarnsund bridge), electroacoustic commission for the administrative merge between the municipalities of Mosvik and Inderøy
- 2012: "Installation for a pedestrian bridge", sound installation on the shipyard bridge («Blomsterbrua"/"Verftsbrua") in Trondheim, under the Meta.Morf international biennale for art and technology.
- 2013: "VBLI Music" sound art work for the Norwegian Mapping Authority. As physical 12-channel installation and as a live 2-channel online stream via web radio and cellphone app. See http://www.researchcatalogue.net/view/55360/55361
- 2014: «[self.]». Kinetic installation based on artificial intelligence, collaboration with Axel Tidemann.

# **Discography**

Contributions to the following releases.

- 1994: Motorpsycho, Timothy's Monster (3xLP/CD). Stickman Records (Germany)
- 1996: Tre Små Kinesere, Tro Håp & Kjærlighet (CD). Columbia
- 1997: Krøyt, Sub (CD) Curling Legs
- 1998: Compilation, Max Users Group Sampler (CD). McGill University, Canada
- 1999: Compilation, Blå i Molde(CD) BP Records
- 1999: Phy, Makes it easier (EP/CD)
- 1999: Krøyt, Low (CD) BP Records
- 2000: Oscillate, Oscillate (EP/CD). SFProd
- 2001: Krøyt, Body Electric (EP/CD). MNW
- 2001: Krøyt, One Heart Is Too Small (CD) Yonada
- 2002: Compilation, JazzCD.no (3xCD) Norsk Jazzforum and Norwegian Ministry of Foreign Affairs
- 2002: 3rd and the Mortal, Memoirs (CD). Voices Of Wonder Records
- 2002: Compilation, RedAndBlue NeitherNorWay (2xCD). Clearspot
- 2002: Askil Holm, Seven Days In The Sun EP (CD). Apache Records
- 2003: Compilation, Love Songs From Mars (CD). Columbia/CBS
- 2006: Chronicles, Chronicles (CD) Crispin Glover Records
- 2006: Crashing Happy, Crashing Happy (CD). BEK
- 2007: Live Maria Roggen, Circuit Songs (CD). Jazzland Records, Universal Music (Norway)
- 2007: Trondheim Jazzorkester, Live In Oslo (CD). MNJ Records
- 2008: Trio Alpaca, Hvor i Rømmegrøten er Melkeveien? (CD) Øra Fonogram
- 2009: Trondheim Jazzorkester, with the group Kobert (CD). MNJ Records
- 2019 Trondheim EMP Poke It With A Stick/Joining The Dots (2xCD, Album). Crónica
- 2020 Øyvind Brandtsegg Nancarrow Biotope. (MC, digital). Crónica
- 2022: Øyvind Brandtsegg Persistent Disequilibrium (digital). Crónica

# **Programming**

- 1997 1998: software for 3D audio control, commissioned by Soundscape Studios for their hardware "Digital Volume Controller".
- 1995-1996: FollowMe, software for interactive composition, improvised interplay between performer and computer.
- 1999: Soundscape Studios and Øyvind Brandtsegg cooperates with Analog Devices on applications using Extended Csound on dedicated DSP hardware.
- 2000/2001: Collaboration with Arne Nordheim and Soundscape Studios on audio installations for Realfagsbygget NTNU Trondheim, and "Dråpen" at Bekkelaget Renseanlegg in Oslo. <a href="http://archive.notam02.no/ekunst">http://archive.notam02.no/ekunst</a> i offentlige rom/index.php?side=verk gilde&m=vp
- 2001: Research project, realtime sound system for Ship Maneuvring Simulator at Lade/Trondheim. With Soundscape Studios.
- 2002: ImproSculpt (classic version), advanced interactive live sampler. Used for the composition "Delta", and for numerous audio installations and live performances.
- 2002: "Choice Hotel", interactive installation "KAOSMIC". Collaboration with Anette H.Lund, Catrine D.Hagen, NTNU, TEKS (Trondheim Electronic Arts Centre) and Soundscape Studios.
- 2002: Research project, adaptive noise masking system for use in public workspace areas. With Soundscape Studios.
- 2003/2004: Software instrument design and implementation for Live M Roggen and Maja S.K.Ratkje.
- 2003: "Øret" (The Ear) audio installation at Otta Primary School, with Marit Arnekleiv and Sigurd Saue.
  - http://archive.notam02.no/ekunst i offentlige rom/index.php?side=verk oret&m=vp
- 2003: Programming for interactive audio installation. "Lydløypa" in Frognerparken, Oslo.
- 2004: Sound server software for synthesis and 3D spatialization for NTNU, inst. for petroleum technology and geophysics.
- 2006: "partikkel", granular synthesis opcode for Csound. With Thom Johansen and Torgeir Strand Henriksen. (<a href="http://www.csounds.com/manual/html/partikkel.html">http://www.csounds.com/manual/html/partikkel.html</a>)
- 2006: Sound server software for audio playback with 3D spatialization, for an Augmented Reality show by Armusement at Norsk folkemuseum in Oslo.
- 2007: ImproSculpt4: A completely revised version of ImproSculpt, build with Python and Csound. (http://sourceforge.net/projects/improsculpt/)
- 2007: Partikkelapplications: A collection of applications for exploring particle synthesis. (http://oeyvind.teks.no/results/applications/partikkelapplications.htm)
- 2010: "modmatrix", a dynamic morphable modulation matrix, opcode for Csound. With Thom Johansen.(http://www.csounds.com/manual/html/modmatrix.html)
- 2011: «Hadron Particle Synthesizer», commercial open source software for audio synthesis and processing. <a href="https://www.partikkelaudio.com">www.partikkelaudio.com</a>
- 2016: liveconv. Live convolution software. https://github.com/Oeyvind/liveconvolver
- 2017 Featexmod. Feature-Extract-Modulator. Software for crossadaptive processing. https://github.com/Oeyvind/featexmod

### Prizes, Awards etc.

"Spellemannsprisen" (1999), for Krøyt album "Low". Statens Arbeidsstipend (2000), 1 year stipend. Edvardprisen (2000), for Krøyt Composition "Silent". Various stipends and support from: Komponistenes Vederlagsfond, Fond for Lyd og Bilde, Statens stipender til kunstnere, Fond for Utøvende Kunstnere, Norsk Kulturråd, Det Norske Komponistfond, Tono, Trondheim Kommune, Steinkjer Kommune, Nord-Trøndelag Fylkeskommune.