The following chronologically listed projects - encompassing multi-channel installations, performances and music publications - all feature applications of the scattering transform, using the scattering.m toolbox.

1. *FAVN*

*FAVN* is a pluriphonic sound piece with a duration of 52 min 55 sec written and produced by Florian Hecker. Featuring synthetic compositions, a commissioned libretto, a bespoke computer-generated voice, a Meyer Sound CAL 64 loudspeaker, a 12-channel line array loudspeaker system, a bouclé fabric screen, a plywood folding paravent, and a lighting system. *FAVN* has been commissioned by Alte Oper Frankfurt, and MMK Museum für Moderne Kunst Frankfurt am Main as part of Musikfest Nachmittag eines Fauns, with the kind support of Gesellschaft der Freunde der Alten Oper Frankfurt. It was premiered on 5 October 2016 at the Großer Saal, Alte Oper, Opernplatz, 60313 Frankfurt, Germany.

The composition of *FAVN* consists of three movements. The first movement is comprised of sound material that has been produced with the scattering transform exclusively. For this a set of incipiently computer generated sound files has been processed with the scattering transform, running 50 iterations for each file, resulting in a new dataset of 3672 sound files. This pool of sound-files served than as the source material for a stochastically weighted algorithmic selection process that structures the playback of these files across a 12-channel line array loudspeaker system over the duration of ca. 16 minutes. One selection criteria was to position earlier iteration numbers - the ones that are noisier and 'less refined', around the beginning of the 16 minutes duration and from there, gradationally move to higher iteration numbers, which feature a 'more refined' resynthesis.

*FAVN* has been staged again between 20 - 27 February 2017 as part of the festival Geometry of Now at the V-A-C Foundation, Moscow, Russia. In this context the piece has been shown on multiple occasions during these dates; a Russian translation of the libretto booklet has been produced, accompanying each performance.

1. *Modulator (Scattering Transform)*

*Modulator (Scattering Transform)* is the title a 14-channel installation piece that was part of the exhibition *Florian Hecker - Formulations* at the MMK Museum für Moderne Kunst Frankfurt am Main, Germany, 26 November 2016 - 05 February 2017. The piece is a complete resynthesis of the composition *Modulator (… meaningless, affectless, out of nothing …)*, originally released on the CD album Hecker, Articulação, Editions Mego, Vienna, Cat. # eMEGO 180, 2014. For the production of *Modulator (Scattering Transform)*, the two-channel composition *Modulator (… meaningless, affectless, out of nothing …)* has been divided into 40 segments with a duration of 0:43.690 for each segment. The scattering transform processed each segment in 50 iterations. For the 14-channel installation version of the piece, iteration numbers 000, 001, 007, 009, 011, 015, 20, 30, 50 from the left channel of the input source and iteration numbers 005\_R, 013\_R, 017\_R, 25\_R, 35\_R from the right channel of the input source have been selected. A single-channel, continuous sound file has been reassembled for each channel. Each channel had a static assignment to one Meyer Sound MM4-XP loudspeaker. This placement facilitated a gradual static spatialisation of the work, allowing the visitors to move between the different iteration numbers throughout the exhibition space.

A two channel version of *Modulator (Scattering Transform)* has been released as part of the album *Articulação Sintetico*, in audio cassette format (Hecker, *Articulação Sintetico,* Editions Mego, Vienna, Cat. # eMEGO 180C, 2017*).* For this version the 50th iteration was choosen for both channels.

Duration: *Modulator [Scattering Transform]*, [29 min 08 sec]

Press release: 24 February 2017: Articulação Sintetico - a complete resynthesis of Hecker’s 2014 Editions Mego album Articulação. A meticulous reconstruction and transfer of qualities, Articulação Sintetico features synthetic voice models of Joan La Barbara, Sugata Bose and Anna Kohler, a DBM sparse replica of non speech content and a scattering transform of Modulator (... meaningless, affectless, out of nothing ...). Uncanny Valley 2.0.

1. *Experimental Palimpsest*

*Experimental Palimpsest* is the working title of a performance piece that has been presented at the Casino de Montbenon, Lausanne as part Lausanne Underground Film & Music Festival on 19 October 2016. Arranged as an eight-channel sound piece with a duration of 25:45.990, Experimental Palimpsest takes the collaborative work Palimpsest (Yasunao Tone & Hecker – *Palimpsest*, Mego, Cat. # 060, Vienna, 2004), by Japanese artist Yasunao Tone and Hecker as the point of departure. The source material, *Palimpsest,* is a 28:32 long two channel composition. Each channel has been segmented into 288 segments with a segment duration of 0:05.944. The scattering transform processed each segment in 50 iterations, resulting in a dataset of 14688 sound files per channel. An algorithmic, probability-based selection algorithm sequenced the playback of this dataset and the distribution over the eight loudspeakers installed in the Salle des Fêtes of the Casino de Montbenon. Similar to the playback structure of the first movement of *FAVN*, lower, hence noisier iteration numbers had a higher probability during the beginning of the piece, higher iteration numbers were selected towards the end of the performance, offering a gradational transition in perceived resolution.

1. *Inspection - Maida Vale Project*

*Inspection - Maida Vale Project*, is a pluriphonic sound piece that has been commissioned by the BBC for Radio 3's 70th season, celebrating 70 years of pioneering sound since the founding of the Third Programme. Presented as a live performance, and a special live edition of BBC Radio 3’s Hear and Now, broadcast from Maida Vale Studio 3 on 3 December 2016. In partnership with BBC Research and Development, it was broadcast in live binaural sound, marking the BBC’s first ever live binaural broadcast.

1. *Inspection II*

*Inspection II* is a new version of *Inspection - Maida Vale Project*, featuring a different computer generated voice, designed by Christophe Veaux from The Centre for Speech Technology Research which employs a deep neural network. Further extensions of the piece are a set of masking sounds that … The premiere of the work was on 16 March 2017 at Andquestionmark, Stockholm, Sweden. The piece has been performed again as part of ephemeropteræ #7, TBA21–Augarten, Vienna, Austria on 14 July 2017.

1. Scattering to Text - book publication: *Halluzination, Perspektive, Synthese*

The book publication on the occasion of the exhibition *Florian Hecker - Halluzination, Perspektive, Synthese*; Kunsthalle Wien, Vienna, Austria, 17 November 2017 - 14 January 2018 will feature 276 pages of Scattering to Text …

1. *Synopsis Seriation* - CD release, 2018, tbc.

Scattering transform used to detect similarities in the pluriphonic compositions, serial ranking ?, related to generalised likelihood ratios, eventually providing a full-fledged demultiplexer-remultiplexer of multichannel audio