A Multi-channel Anechoic Orchestra Recording of Beethoven's Symphony No. 8 op. 93

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General Information

This data set contains an excerpt of the anechoic recording of the Symphony No. 8 in F Major, Op. 93 by Ludwig van Beethoven, performed by the "Orchester Wiener Akademie" conducted by Martin Haselböck. It was recorded in the anechoic chamber of the TU Berlin. The complete recording (movements 1, 2 and 4, 20 minutes playing time) is available upon request. Please contact the authors.

This documentation focuses on the content of the data set. More information on the recording and processing can be found in the accompanying article in the proceedings of the 44th German Annual Conference on Acoustics (DAGA). If you use this data set please cite:

> Christoph Böhm and David Ackermann and Stefan Weinzierl (2018): "Eine mehrkanalige und nachhallfreie Aufnahme von Beethovens 8. Sinfonie". In: Fortschritte der Akustik - 44. Jahrestagung für Akustik (DAGA), München.

Data base description

The data set is subdivided into four zip files. Three of the files contain the audio data of one of the three recorded movements. They are subdivided into one folder *anechoic* for the anechoic recording and one folder *mix* with a stereo mixdown of the movement. The fourth zip file contains the impulse responses of the used filters to equalize the microphones. For additional information please refer to the article named above. The complete file structure is shown in Table 1 and 2.

The anechoic audio is provided in 61 single tracks per movement. These anechoic tracks are ready to be used for auralizations. The mixdown of each movement is done with an artificial reverb, equalization and panning. This mix is provided to give an impression of the technical and musical potential of the recording.

The authors would like to thank all participants and especially Martin Haselböck and the Orchester Wiener Akademie for their patience and uncomplicated cooperation.

Table 1: File structure: *micfilter*

Directory	Category	Microphone	File	Format
micfilter/	Microphone Compensation Filter	KM 120 (1)	01_micfilter.wav	WAV, Mono, 32 Bit float, 48 kHz
micfilter/	Microphone Compensation Filter	KM 120 (2)	02_micfilter.wav	WAV, Mono, 32 Bit float, 48 kHz
micfilter/	Microphone Compensation Filter	KM 120 (3)	03_micfilter.wav	WAV, Mono, 32 Bit float, 48 kHz
micfilter/	Microphone Compensation Filter	KM 120 (4)	04_micfilter.wav	WAV, Mono, 32 Bit float, 48 kHz
micfilter/	Microphone Compensation Filter	KM 120 (5)	05_micfilter.wav	WAV, Mono, 32 Bit float, 48 kHz
micfilter/	Microphone Compensation Filter	KM 120 (6)	06_micfilter.wav	WAV, Mono, 32 Bit float, 48 kHz
micfilter/	Microphone Compensation Filter	KM 184 (7)	07_micfilter.wav	WAV, Mono, 32 Bit float, 48 kHz
micfilter/	Microphone Compensation Filter	KM 184 (8)	08_micfilter.wav	WAV, Mono, 32 Bit float, 48 kHz
micfilter/	Microphone Compensation Filter	MK8 (9)	09_micfilter.wav	WAV, Mono, 32 Bit float, 48 kHz
micfilter/	Microphone Compensation Filter	MK8 (10)	10_micfilter.wav	WAV, Mono, 32 Bit float, 48 kHz
micfilter/	Microphone Compensation Filter	MK5 (11)	11_micfilter.wav	WAV, Mono, 32 Bit float, 48 kHz

Table 2: File structure: *movement**

Directory	Category	Instrument	File	Format
movement*/anechoic/	Audio	Flute 1	01_Fl_1.wav	WAV, Mono, 32 Bit float, 48 kHz
movement*/anechoic/	Audio	Flute 2	02_Fl_2.wav	WAV, Mono, 32 Bit float, 48 kHz
movement*/anechoic/	Audio	Oboe 1	03_Ob_1.wav	WAV, Mono, 32 Bit float, 48 kHz
movement*/anechoic/	Audio	Oboe 2	04_Ob_2.wav	WAV, Mono, 32 Bit float, 48 kHz
movement*/anechoic/	Audio	Clarinet 1	05_Cl_1.wav	WAV, Mono, 32 Bit float, 48 kHz
movement*/anechoic/	Audio	Clarinet 2	06_Cl_2.wav	WAV, Mono, 32 Bit float, 48 kHz
movement*/anechoic/	Audio	Bassoon 1	07_Bn_1.wav	WAV, Mono, 32 Bit float, 48 kHz
movement*/anechoic/	Audio	Bassoon 2	08_Bn_2.wav	WAV, Mono, 32 Bit float, 48 kHz
movement*/anechoic/	Audio	Horn 1	09_Hrn_1.wav	WAV, Mono, 32 Bit float, 48 kHz
movement*/anechoic/	Audio	Horn 2	10_Hrn_2.wav	WAV, Mono, 32 Bit float, 48 kHz
movement*/anechoic/	Audio	Trumpet 1	11_Trp_1.wav	WAV, Mono, 32 Bit float, 48 kHz
movement*/anechoic/	Audio	Trumpet 2	12_Trp_2.wav	WAV, Mono, 32 Bit float, 48 kHz
movement*/anechoic/	Audio	Timpani	13_Tp.wav	WAV, Mono, 32 Bit float, 48 kHz
movement*/anechoic/	Audio	Violin 1.1	14_Vl_1_1_1.wav	WAV, Mono, 32 Bit float, 48 kHz
movement*/anechoic/	Audio	Violin 1.1	15_Vl_1_1_2.wav	WAV, Mono, 32 Bit float, 48 kHz
movement*/anechoic/	Audio	Violin 1.1	16_Vl_1_1_3.wav	WAV, Mono, 32 Bit float, 48 kHz
movement*/anechoic/	Audio	Violin 1.1	17_Vl_1_1_4.wav	WAV, Mono, 32 Bit float, 48 kHz
movement*/anechoic/	Audio	Violin 1.1	18_Vl_1_1_5.wav	WAV, Mono, 32 Bit float, 48 kHz
movement*/anechoic/	Audio	Violin 1.1	19_Vl_1_1_6.wav	WAV, Mono, 32 Bit float, 48 kHz
movement*/anechoic/	Audio	Violin 1.1	20_Vl_1_1_7.wav	WAV, Mono, 32 Bit float, 48 kHz
movement*/anechoic/	Audio	Violin 1.2	21_Vl_1_2_1.wav	WAV, Mono, 32 Bit float, 48 kHz
movement*/anechoic/	Audio	Violin 1.2	22_Vl_1_2_2.wav	WAV, Mono, 32 Bit float, 48 kHz
movement*/anechoic/	Audio	Violin 1.2	23_Vl_1_2_3.wav	WAV, Mono, 32 Bit float, 48 kHz
movement*/anechoic/	Audio	Violin 1.2	24_Vl_1_2_4.wav	WAV, Mono, 32 Bit float, 48 kHz
movement*/anechoic/	Audio	Violin 1.2	25_Vl_1_2_5.wav	WAV, Mono, 32 Bit float, 48 kHz
movement*/anechoic/	Audio	Violin 1.2	26_Vl_1_2_6.wav	WAV, Mono, 32 Bit float, 48 kHz
movement*/anechoic/	Audio	Violin 1.2	27_Vl_1_2_7.wav	WAV, Mono, 32 Bit float, 48 kHz
movement*/anechoic/	Audio	Violin 2.1	28_Vl_2_1_1.wav	WAV, Mono, 32 Bit float, 48 kHz
movement*/anechoic/	Audio	Violin 2.1	29_Vl_2_1_2.wav	WAV, Mono, 32 Bit float, 48 kHz
movement*/anechoic/	Audio	Violin 2.1	30_Vl_2_1_3.wav	WAV, Mono, 32 Bit float, 48 kHz
movement*/anechoic/	Audio	Violin 2.1	31_Vl_2_1_4.wav	WAV, Mono, 32 Bit float, 48 kHz
movement*/anechoic/	Audio	Violin 2.1	32_Vl_2_1_5.wav	WAV, Mono, 32 Bit float, 48 kHz
movement*/anechoic/	Audio	Violin 2.1	33_Vl_2_1_6.wav	WAV, Mono, 32 Bit float, 48 kHz
movement*/anechoic/	Audio	Violin 2.2	34_Vl_2_2_1.wav	WAV, Mono, 32 Bit float, 48 kHz
movement*/anechoic/	Audio	Violin 2.2	35_Vl_2_2_2.wav	WAV, Mono, 32 Bit float, 48 kHz
movement*/anechoic/	Audio	Violin 2.2	36_Vl_2_2_3.wav	WAV, Mono, 32 Bit float, 48 kHz
movement*/anechoic/	Audio	Violin 2.2	37_Vl_2_2_4.wav	WAV, Mono, 32 Bit float, 48 kHz
movement*/anechoic/	Audio	Violin 2.2	38_Vl_2_2_5.wav	WAV, Mono, 32 Bit float, 48 kHz
movement*/anechoic/	Audio	Viola 1	39_Vla_1_1.wav	WAV, Mono, 32 Bit float, 48 kHz
movement*/anechoic/	Audio	Viola 1	40_Vla_1_2.wav	WAV, Mono, 32 Bit float, 48 kHz
movement*/anechoic/	Audio	Viola 1	41_Vla_1_3.wav	WAV, Mono, 32 Bit float, 48 kHz
movement*/anechoic/	Audio	Viola 1	42_Vla_1_4.wav	WAV, Mono, 32 Bit float, 48 kHz
movement*/anechoic/	Audio	Viola 1	43_Vla_1_5.wav	WAV, Mono, 32 Bit float, 48 kHz
movement*/anechoic/	Audio	Viola 1	44_Vla_1_6.wav	WAV, Mono, 32 Bit float, 48 kHz
movement*/anechoic/	Audio	Viola 2	45_Vla_2_1.wav	WAV, Mono, 32 Bit float, 48 kHz
movement*/anechoic/	Audio	Viola 2	46_Vla_2_2.wav	WAV, Mono, 32 Bit float, 48 kHz
movement*/anechoic/	Audio	Viola 2	47_Vla_2_3.wav	WAV, Mono, 32 Bit float, 48 kHz
movement*/anechoic/	Audio	Viola 2	48_Vla_2_4.wav	WAV, Mono, 32 Bit float, 48 kHz
movement*/anechoic/	Audio	Viola 2	49_Vla_2_5.wav	WAV, Mono, 32 Bit float, 48 kHz
movement*/anechoic/	Audio	Violoncello	50_Vc_1.wav	WAV, Mono, 32 Bit float, 48 kHz
movement*/anechoic/	Audio	Violoncello	51_Vc_2.wav	WAV, Mono, 32 Bit float, 48 kHz
movement*/anechoic/	Audio	Violoncello	52_Vc_3.wav	WAV, Mono, 32 Bit float, 48 kHz
movement*/anechoic/	Audio	Violoncello	53_Vc_4.wav	WAV, Mono, 32 Bit float, 48 kHz
movement*/anechoic/	Audio	Violoncello	54_Vc_5.wav	WAV, Mono, 32 Bit float, 48 kHz
movement*/anechoic/	Audio	Violoncello	55_Vc_6.wav	WAV, Mono, 32 Bit float, 48 kHz
movement*/anechoic/	Audio	Double Bass	56_Db_1.wav	WAV, Mono, 32 Bit float, 48 kHz
movement*/anechoic/	Audio	Double Bass	57_Db_2.wav	WAV, Mono, 32 Bit float, 48 kHz
movement*/anechoic/	Audio	Double Bass	58_Db_3.wav	WAV, Mono, 32 Bit float, 48 kHz
movement*/anechoic/	Audio	Double Bass	59_Db_4.wav	WAV, Mono, 32 Bit float, 48 kHz
movement*/anechoic/	Audio	Double Bass	60_Db_5.wav	WAV, Mono, 32 Bit float, 48 kHz
movement*/anechoic/	Audio	Double Bass	61_Db_6.wav	WAV, Mono, 32 Bit float, 48 kHz
movement*/mix/	Audio	all	movement1_mix.wav	WAV, Stereo, 24 Bit PCM, 48 kHz
movement*/mix/	Audio	all	movement2_mix.wav	WAV, Stereo, 24 Bit PCM, 48 kHz
movement*/mix/	Audio	all	movement4_mix.wav	WAV, Stereo, 24 Bit PCM, 48 kHz

Credits

Orchestra

Orchester Wiener Akademie

Conductor

Martin Haselböck

Recording Producer

Prof. Dr. Stefan Weinzierl

Recording Engineer

Ruben Ferdinand

Digital Editing

Balthasar Effmert

Recording Assistants

Clémence Fabre, Philipp Reif, Hannes Helmolz, Dmitry Grigoriev

Planning and Production

David Ackermann, Christoph Böhm

Musicians

Violin 1: Ilia Korol
Violin 1: Irma Niskanen
Violin 2: David Drabek
Violin 2: Anna-Maria Smerd
Viola: Pablo de Pedro Cano
Viola: Wolfram Fortin
Violoncello: Philipp Comploi
Double Bass: Walter Bachkönig
Flute 1: Verena Fischer
Flute 2: Charles Brink
Oboe 1: Shai Kribus
Oboe 2: Sebastian Frese
Clarinet 1: Peter Rabl
Clarinet 2: Christian Köll
Bassoon 1: Takako Kunugi
Bassoon 2: Laszlo Feriencsik
Horn 1: Hermann Ebner
Horn 2: Ferenc Varga
Trumpet 1: Sigfried Koch
Trumpet 2: Stefan Ennemoser
Timpani: Paul Bramboeck