

**Julio Zúñiga**

# **CES**

for amplified cello  
and electronics

(2018)

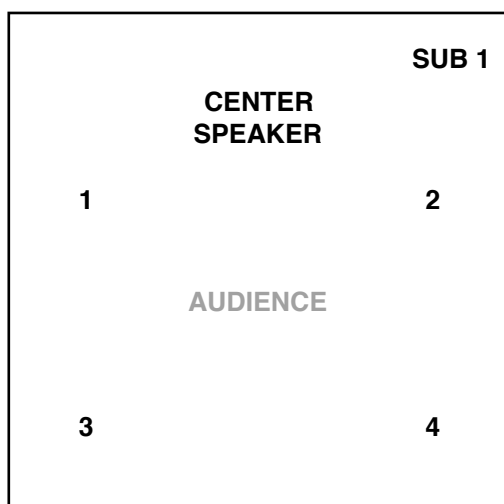


## INSTRUMENTATION AND SETUP

cello (with scordatura\*)  
2 MIDI foot pedals  
\* tune 4th string down to  
60Hz before performance  
(see page 3)

2 contact microphones  
1 cardioid condenser microphone  
(Neumann KM 184 or similar)

1 subwoofer  
1 speaker center stage  
4 speakers around the audience



The performer must not be on stage. Rather, they are amplified from a separate room. This may be a room backstage or any other with a routing mechanism whereby the signal can be fed into the hall.

## GENERAL INDICATIONS

Dynamics are to be interpreted very literally throughout. *Cresc.* and *decresc.* should not be applied to note onsets and offsets, respectively. Rather, the impression of crude sonic blocks is desired. (Think of **NOTE ON**, **NOTE OFF**.)

## FILTERS AND ELECTRONICS

The cello is very heavily amplified throughout. The amplified, mono signal comes out of the center speaker right after it is filtered using a band-pass filter in Max MSP. The bottom and top frequencies of the BPF are notated as the closest approximate pitches on the small staff below the cello, together with their values in Hz.

While the first MIDI foot pedal simply triggers cues, the second one acts as a kind of expression pedal. The indication "pedal 2" is always accompanied by a glissando of the filters' outer frequencies: the cellist must move through this gliss. using the pedal's up and down positions as beginning and end points of the gliss.

Cue 22 (page 3) inverts the BPF, turning it into a band-stop filter with the same frequency boundaries.

Duration: 7'13"



# CES

for Alice Purton  
but also for TJ

Julio Zúñiga

$\text{♩} = 55$

vc  
bpf

415 Hz  
251 Hz  
830 Hz  
502 Hz  
312 Hz  
233 Hz  
261 Hz  
258 Hz

ped. 2

ped. 2

266.5 Hz  
220 Hz  
382.5 Hz  
337.5 Hz  
616 Hz  
580 Hz

ped. 2

electronics only

269.3 Hz  
233 Hz  
358 Hz  
266.5 Hz  
508 Hz  
1036 Hz  
960 Hz  
740 Hz  
677 Hz

ped. 2

1'20"

15

40"

16

vc

♩ = 55

588 Hz

313 Hz

370 Hz

280 Hz

ped. 2

20"

18

♩ = 88

mst

pp

349 Hz

285 Hz

19

20

pst

p

415 Hz

251 Hz

261 Hz

220 Hz

ped. 2

21

st

ppp

1444.5 Hz

imitate line, apply it to cresc.

ped. 2

SUB

46 Hz

mp

43.5 Hz

ppp almost imperceptible

43 Hz

34.7 Hz

22 ————— 33" ————— 23

15<sup>ma</sup>  
(1760 Hz)

vc

(60 Hz)  
*ppp* almost imperceptible

bpf

1444.5 Hz

Sines

258 Hz  
*fff*

4'09"

~1'30"  
rest

~1'20"

~15"  
rest

3'05"  
electronics