

RINGER

for amplified flute and contrabass
with ring modulation

Sid Richardson
(2026)

RINGER

Instrumentation

flute
contrabass

Duration: 8 minutes

Performance Notes

This work calls for amplification of the acoustic instruments in addition to live processing. For the flute, it's recommended that a clip-on microphone, such as a DPA 4099 CORE+, be used to avoid feedback. For the bass, if the instrument has a pickup installed in the bridge that is preferable, but otherwise the instrument should be mic'd as closely as possible with a unidirectional cardioid microphone.

The bass signal is run through a Max patch that accompanies the work, which toggles between nine custom ring modulator settings with precise tunings (2-10). Changes between settings are indicated in the score in boxed, bold letters above the bass part. These may be triggered by the bassist using a foot pedal, or by a technician following the score in performance. The first setting, 1, arms the patch before the first downbeat. It's recommended that the digital audio interface used for the performance be set to the highest sampling rate possible in order to minimize digital distortion that may result from aliasing across the Nyquist frequency.

The flute part is solely amplified without processing until the final section of the work, rehearsal G, at m. 140. At this point, the flute mic signal, routed through a mixer channel, is fed into a Moog MF-102 Moogerfooger Ring Modulator via an auxiliary send from that channel of the mixing board. The effected signal (ring modulation) is then returned to the mixer on a different channel so that the "dry," amplified level of the flute and the "wet" effect level can be controlled separately. The exact balance between the two is left to the discretion of the audio technician, but the effect should be pronounced and intense. Note that the overall level of the "dry" flute signal in the mix may have to be reduced due to the increase in dynamics at this point of the piece. The MF-102 should be set with the mix at 10 (100% wet), with the frequency switch on the right of the pedal switched to "high," and the frequency set around 130 Hz. At m. 160, the frequency should be set to 1.1 kHz either by the flutist or the technician. The LFO amount should be set to zero, or disengaged.

Flute multiphonic fingerings have been provided, but the composer recognizes that these may respond differently from flute to flute. The player may substitute fingerings that approximate any of the given written pitches, or that evoke a diffuse sound akin to ring modulation. The same goes for quarter tones.

Program Note

RINGER was first conceived during my first year of teaching at New England Conservatory, and was developed and workshopped in close collaboration with flutist and composer Joshua Hahn. It is a basking of sorts in ring modulation, which has always been one of my favorite effects ever since first hearing Karlheinz Stockhausen's *Mantra* in graduate school. In *RINGER*, the bass is privileged with the ring modulation throughout (as a kind of acoustic ringer), while the flute is tasked with imitating the effect through various techniques and manners of playing. It also at times isolates specific frequencies from the spectra of the modulated bass. Towards the end of the work, the flute gets its time to bask in the glow of the effect as well.

A long period of gestation for *RINGER* was the result of another commission coming up in 2021, at which point I broke off from working on this piece. I had meant to return to it at several points, but the opportunity never presented itself until now. I am grateful to my colleague in the Composition Department, John Mallia, for encouraging me to finish this work and bring it out into the world. The premiere performance in Jordan Hall at NEC on October 8, 2026, was given by the composer on bass and Shion Suzuki on flute.

RINGER

for Joshua Hahn

Sid Richardson
(b. 1987)

♩ = 92 Pesante

Amplified Flute

Sing lower pitch while playing upper pitch

sim.

p *pp* *mp* *p*

2 Foot pedal setting in Max patch*

Amplified Contrabass

mf *p* *mp* *p*

* Tap foot pedal once before beginning to arm it [1] ** Slow, steady *gliss.* throughout given duration

5

sing and play unison, bending the pitch down and back to unison with the voice *ad libitum*

mp *pp* *mf*

gliss. *p* *mf* *mf* *mf* *f* *mp*

9

Sing lower pitch, play upper pitch

p *gliss.* *mf*

Sing upper pitch, play lower pitch

p *gliss.* *f* *3* *sfz* *sfz* *sfz* *mp*

(3 + 2)

13 *sim.*

mf *gliss.* *mf* *mp* *p*

Sing lower pitch, play upper pitch

Sing upper pitch, play lower pitch

ff *pesante* *mf* *f* *mf*

A Monolithic

17 *sim.*

gliss. *mp* *mf* *pp* *mp*

3 (pedal) *ff* *pesante*

sfz *>* *sfz* *>* *sfz* *>* *mp* *<* *f*

21 *p* *mf* *f* *ff*

25 *p*

29 *mf* *f* *p* *mf*

sim.

sing lower pitch,
play upper pitch

B Pesante

33 *ad lib.* pitch bends *mf* *p* *f* *mp* *f* *mp* *p*

Sing upper pitch,
play lower pitch

sim. *poco*

4

37

sing lower pitch,
play upper pitch

poco

pp

mp *gliss.*

mf

gliss.

l.v.

41

ad lib. pitch bends

pp

mp

pp

sfz. mf

3

sfz *sfz* *f espr.*

port.

C Widening

45

p

poco

ord.

f strident

gliss.

mp

f non dim. sempre

49

3

3 *p*

mf

f

gliss.

l.v.

53

sing and play,
ad lib. pitch bends

ord.

f strident

3

fp

poco

sim.

57 *mf* *p* *f* strident *ff* *pp* *pp*

gliss.

sing upper pitch,
play lower pitch

61 *mp* *f* strident *mf* *f*

ord.

III IV

gliss.

65 *p* *f* *sfz* *mp* *f* *mp*

fl.

ord.

gliss.

sul pont.

(l.v.)

l.v.

mp *ff*

D

69 *pp* *mp* *p* *mp*

3

ord.

3

mf *f* *mf* *f*

sing upper pitch,
play lower pitch

sing lower pitch,
play upper pitch

gliss.

5

73 *p* *mp*

sim.

gliss.

mp *f* *ff* *pp* *mp*