f/m

for brass band

Andrew Baker

SAMPLE

f/m

for brass band
Andrew Baker

f/m was inspired by the internet cartoon 'frequency' by the artist Randall Munroe, which can be seen at http://xkcd.com/1331/.

'Frequency' displays a grid of randomly chosen statistical events which flash at the frequency of their real-time occurence; an outwardly banal idea with surprisingly profound results. *f/m* (which - predictably - is short for *frequency/modulation*) takes a similarly random set of time/duration statistics and uses them to generate the note lengths for each instrument. The first four statistics (and the first brass instrument entries) are derived from physical science. The next eight are all related to the natural world. The final ten, for which the cornets are used, represent contemporary human activity. The percussion instruments maintain a "tick and chime" throughout the work.

The statistics used are as follows, indicated by numbers in brackets in the score at the first iteration of each one:

1: Lightning strikes the earth 100 times per second
2: The first pulsar ever discovered, *PSR1919+21*, pulses once every 1.337 seconds
3: There are approximately 10 supernovae every 0.95 seconds
4: Every 0.6 seconds the entire solar system moves 100 miles around the galactic centre
5: Every 4.1 seconds a 70 kg human emits 1000 gamma rays due to naturally occurring potassium
6: A blue whale's heart beats once every 6.67 seconds
7: A hedgehog's heart beats 300/min or 5 times a second
8: Every 2 seconds the net population of the world increases by 5
9: There is one birth every 0.24 seconds
10: There is one death 0.56 seconds
11: 5.14 people die of malaria every minute (one every 11.67 seconds)
12: 10 kilotonnes of polar ice are lost on average every 1.4 seconds.
13: Walmart's takes in sales revenue of $10,000 every 1.4 seconds
14: Every 3 seconds there are 60,000 plastic bags used in US supermarkets
15: Every 0.72 seconds the world uses 500 tonnes of paper
16: Every 7.65 seconds, South Korea builds a car
17: Every 1.75 seconds, China builds a car
18: Every 5.8 seconds, Germany builds a car
19: Every 4.7 seconds, the USA builds a truck
20: Two commercial airline flights take off every 1.86 seconds
21: Macdonalds serves 300 burgers every 4 seconds and feeds 787 people per second
22: Starbucks uses 3 gallons of milk every second

Performance Notes:

All entries are cued by the conductor at his/her discretion. There is no specified minimum or maximum time between entries and no specified overall duration; the times between each new entry do not have to be consistent unless the conductor wishes them to be so. However each player should be allowed time to complete at least one iteration of their note, and preferably to become comfortable with their place in the overall texture - one of the aims of the work is try present dissonant sounds through the medium of the brass band outside the normal performance context, allowing players to find their place in a non-diatonic harmonic matrix without regard for linear motion or developmental activity. Entries should not coincide unless they align vertically on the score. While it is accepted that absolute accuracy is not possible, players should attempt to get as close as they can the the printed duration of their note, and do their best to keep that duration consistent during repetitions. Rests are indicated by empty staves. A continuous line indicates a repetition in progress.
Soprano cornet will require a harmon mute. Cornet 1 and Trombone 2 require metal straight mutes. Cornets 5,7,8 and 9 require cup mutes. The work requires three percussionists, playing tubular bells, vibraphone and and egg shaker.

Approximate duration 6'00" - 9'00"

SAMPLE

© Morthanveld Publishing Ltd 2016

Soprano Cornet in E♭

Cornet 1 in B♭

Cornet 2 in B♭

Cornet 3 in B♭

Cornet 4 in B♭

Cornet 5 in B♭

Cornet 6 in B♭

Cornet 7 in B♭

Cornet 8 in B♭

Cornet 9 in B♭

Flugelhorn

Tenor Horn 1

Tenor Horn 2

Tenor Horn 3

Baritone 1

Baritone 2

Trombone 1

Trombone 2

Bass Trombone

Euphonium 1

Euphonium 2

E♭ Bass 1

E♭ Bass 2

B♭ Bass 1

B♭ Bass 2

Egg Shaker

Tubular Bells

Vibraphone

(2) ♩ = 120 *mp* repeat in tempo independent of other instruments

(3) ♩ = 120 *mp* repeat in tempo independent of other instruments

(4) ♩ = 120 *p* repeat in tempo independent of other instruments

(2) ♩ = 120 *mf* repeat in tempo independent of other instruments

(1) ♩ = 120 *mp* repeat in tempo with euph 2 but independent of other instruments

(1) ♩ = 120 *mp* repeat in tempo with euph 1 but independent of other instruments

♩ = 120 *p* repeat in tempo independent of other instruments

f l.v.

[motors on]

f l.v.

SAMPLE

© Morthanveld Publishing Ltd 2016

A

Sop. Cor.
Cor. 1
Cor. 2
Cor. 3
Cor. 4
Cor. 5
Cor. 6
Cor. 7
Cor. 8
Cor. 9
Flug.
Hn. 1
Hn. 2
Hn. 3
Bar. 1
Bar. 2
Tbn. 1
Tbn. 2
B. Tbn.
Euph. 1
Euph. 2
E♭ Bass 1
E♭ Bass 2
B♭ Bass 1
B♭ Bass 2
E.S.
Tub. B.
Vib.

♩ = 120 *mp* (sim.)

♩ = 120 *mf* (sim.)

(8) ♩ = 120 *mp* (sim.)

♩ = 120 *mp* (sim.)

(5) ♩ = 120 *pp* repeat in tempo independent of other instruments

(6) ♩ = 120 *pp* repeat in tempo independent of other instruments

f l.v.

f l.v.

SAMPLE

© Morthanveld Publishing Ltd 2016

B

Sop. Cor.
Cor. 1
Cor. 2
Cor. 3
Cor. 4
Cor. 5
Cor. 6
Cor. 7
Cor. 8
Cor. 9
Flug.
T. Hn. 1
T. Hn. 2
T. Hn. 3
Bar. 1
Bar. 2
Tbn. 1
Tbn. 2
B. Tbn.
Euph. 1
Euph. 2
E♭ Bass 1
E♭ Bass 2
B♭ Bass 1
B♭ Bass 2
E. S.
T. Bells
Vib.

(7) ♩ = 120 mp 5 f
repeat in tempo with horn 2 but independent of other instruments
♩ = 120 f 5 mp (7)
repeat in tempo with horn 1 but independent of other instruments
(10) ♩ = 120 mf
repeat in tempo independent of other instruments
(12) ♩ = 120 5 pp mf
repeat in tempo independent of other instruments
(11) ♩ = 120 metal st. mute sfp
repeat in tempo independent of other instruments
(9) ♩ = 120 fp
repeat in tempo independent of other instruments
(breathe where ever necessary)
(8) ♩ = 120 sfmp
repeat in tempo independent of other instruments

SAMPLE

© Morthanveld Publishing Ltd 2016

C

Sop. Cor.

Cor. 1

Cor. 2

Cor. 3

Cor. 4

Cor. 5

Cor. 6

Cor. 7

Cor. 8

Cor. 9

(13) ♩ = 120 *pp* *mf*

repeat in tempo independent of other instruments

(14) ♩ = 120 *mfp*

repeat in tempo independent of other instruments

harmon mute (tube in)

(15) ♩ = 120 *mp*

repeat in tempo independent of other instruments

cup mute

(16) ♩ = 120 *mp*

cup mute

(17) ♩ = 120 *mp*

repeat in tempo independent of other instruments

Flug. STOP

T. Hn. 1 STOP

T. Hn. 2 STOP

T. Hn. 3 STOP

Bar. 1 STOP

Bar. 2 STOP

Tbn. 1 STOP

Tbn. 2 STOP

B. Tbn. STOP

Euph. 1 STOP

Euph. 2 STOP

E♭ Bass 1 STOP

E♭ Bass 2 STOP

B♭ Bass 1 STOP

B♭ Bass 2 STOP

E.S.

Tub. B. *f* l.v.

Vib. *f* l.v.

SAMPLE

© Morthanveld Publishing Ltd 2016

D

Sop. Cor.

Cor. 1

metal st.mute

(22)

♩ = 120

repeat in tempo independent of other instruments

(breathe wherever necessary)

Cor. 2

Cor. 3

(20)

♩ = 120

repeat in tempo independent of other instruments

Cor. 4

(21)

♩ = 120

repeat in tempo independent of other instruments

Cor. 5

cup mute

(19)

♩ = 120

repeat in tempo independent of other instruments

Cor. 6

(18) cup mute

♩ = 120

Cor. 7

repeat in tempo independent of other instruments

Cor. 8

Cor. 9

repeat in tempo independent of other instruments

Flug.

T. Hn. 1

T. Hn. 2

T. Hn. 3

Bar. 1

Bar. 2

Tbn. 1

Tbn. 2

B. Tbn.

Euph. 1

Euph. 2

E♭ Bass 1

E♭ Bass 2

B♭ Bass 1

B♭ Bass 2

E.S.

Tub. B.

Vib.

SAMPLE

© Morthanveld Publishing Ltd 2016

E

Sop. Cor. *cresc. poco a poco al* ***ff***

Cor. 1 *cresc. poco a poco al* ***ff***

Cor. 2 *cresc. poco a poco al* ***ff***

Cor. 3 *cresc. poco a poco al* ***ff***

Cor. 4 *cresc. poco a poco al* ***ff***

Cor. 5 *cresc. poco a poco al* ***ff***

Cor. 6 *cresc. poco a poco al* ***ff***

Cor. 7 *cresc. poco a poco al* ***ff***

Cor. 8 *cresc. poco a poco al* ***ff***

Cor. 9 *cresc. poco a poco al* ***ff***

Flug. ***p*** (sim.) *cresc. poco a poco al* ***ff***

T. Hn. 1 ***p*** (sim.) *cresc. poco a poco al* ***ff***

T. Hn. 2 ***p*** (sim.) *cresc. poco a poco al* ***ff***

T. Hn. 3 ***p*** (sim.) *cresc. poco a poco al* ***ff***

Bar. 1 ***p*** (sim.) *cresc. poco a poco al* ***ff***

Bar. 2 ***p*** (sim.) *cresc. poco a poco al* ***ff***

Tbn. 1 ***p*** (sim.) *cresc. poco a poco al* ***ff***

Tbn. 2 ***p*** (sim.) *cresc. poco a poco al* ***ff***

B. Tbn. ***p*** (sim.) *cresc. poco a poco al* ***ff***

Euph. 1 ***p*** **(sim.) *cresc. poco a poco al ff***

Euph. 2 ***p*** **(sim.) *cresc. poco a poco al ff***

E♭ Bass 1 **(sim.) *cresc. poco a poco al ff***

E♭ Bass 2 (sim.) *cresc. poco a poco al* ***ff***

B♭ Bass 1 ***p*** (sim.) *cresc. poco a poco al* ***ff***

B♭ Bass 2 ***p*** (sim.) *cresc. poco a poco al* ***ff***

E.S. ***p*** (sim.) *cresc. poco a poco al* ***ff***

Tub. B. ***f*** l.v.

Vib. ***f*** l.v. ***p*** repeat in tempo independent of other instruments *cresc. poco a poco al* ***ff***

p repeat in tempo independent of other instruments *cresc. poco a poco al* ***ff***

SAMPLE

© Morthanveld Publishing Ltd 2016

SAMPLE

© Morthanveld Publishing Ltd 2016

Sop. Cor.
Cor. 1
Cor. 2
Cor. 3
Cor. 4
Cor. 5
Cor. 6
Cor. 7
Cor. 8
Cor. 9
Flug.
T. Hn. 1
T. Hn. 2
T. Hn. 3
Bar. 1
Bar. 2
Tbn. 1
Tbn. 2
B. Tbn.
Euph. 1
Euph. 2
E♭ Bass 1
E♭ Bass 2
B♭ Bass 1
B♭ Bass 2
E.S.
Tub. B.
Vib.

STOP

pp l.v.

SAMPLE

© Morthanveld Publishing Ltd 2016