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Gonçalo Gato

Vacuum Instability

for octet

Instruments:

Flute

Clarinet in B \flat , Bass Clarinet in B \flat
BassoonTrumpet in B \flat
Tenor TromboneViola
Contrabass

Piano

Programme Notes:

Vacuum Instability is a work for an ensemble of eight musicians. The title is derived from a recent news article related to the probable scientific discovery of the Higgs boson: "A concept known as vacuum instability could result, billions of years from now, in a new universe opening up in the present one and replacing it." - BBC News, 19th February 2013. The idea of the inner workings of the Cosmos always fascinated me, and the fact that the universe could 'renew' itself in such a way is just so surprising. I guess these ideas are very similar to ideas about music material's variation and contrast.

London, March 2013

The piece was premiered on 15 March 2013 at the BBC Maida Vale Studios, London. Richard Baker conducted an ensemble comprised of BBC Symphony Orchestra musicians plus Guildhall School of Music and Drama students.

Execution notes:

- Score notated in C.
- Accidentals last one bar and affect only the octave on which they appear.
- Rests outside the staff clarify the duration of the uninterrupted glissandi.
- The letter 'n', used as a dynamic marking, stands for *niente*, meaning silence.

Vacuum Instability

Score in C

Gonçalo Gato

Largo, $\text{J} = 50$

Flute
Bass Clarinet in B♭
Bassoon
Trumpet in B♭
Tenor Trombone
Viola
Contrabass
Piano

p *ppp* *s.v.* *Whispa mute* *s.v.*
f *mf-pp* *n*
p *p* *p* *p* *p* *p* *p*
ppp *p* *pp* *p* *p* *p* *p*
f *pp* *f* *f* *ff*

Rd. *Rd.*

7

F1.
B. Cl.
Bsn.
Tpt.
Tbn.
Vla.
Cb.
Pno.

mf *f-p* *ppp* *f* *n* *ppp* *f* *n* *ppp* *p*
f-p *ppp* *f* *n* *ppp* *f* *n* *n* *ppp*
s.v. *fuse in harmony* *s.v. semper* *fuse in harmony* *simile* *ord.*
s.v. semper *fuse in harmony* *fuse in harmony* *fuse in harmony* *simile* *ord.*
mf *p* *f-p* *ppp* *f* *n* *ppp* *f* *n* *ppp*
p *f-p* *ppp* *f* *n* *ppp* *f* *n* *ppp*
ord. *Sul C* *gliss.* *s.v.* *fuse in harmony* *simile* *s.v.*
f *mp* *f-p* *n* *ff* *n* *n* *ff* *n* *mf* *n*
p *ppp* *ff* *n* *ppp* *ff* *n* *ppp* *ff* *ppp*
mp *f* *pp* *fff* *ff*

Rd.

2

16

Fl. s.v. sempre
fuse in harmony

B. Cl. simile

Bsn. *mf*

Tpt. *very plain*

Tbn. *ppp* < *mf*

Vla. s.v. sempre

Cb. *simile*

Pno. *fff* *ppp*

=

24

Fl. *n* *ppp* < *mf* *n* *ppp* < *ff* *n* *n* *ppp* < *mf* *n*

B. Cl. *n* *mf* *n* *n* *ff* *n* *n* *ppp* < *mf* *n*

Bsn. *pp* *n*

Tpt. *f* *n*

Tbn. *n* *ppp* < *mf* *n* *ppp* < *mf* *n*

Vla. *n* *n* *f* *n* *ff* *n* *n* *f* *pp* < *ff*

Cb. *ord.* *sul pont.* *ord.* *sul pont.* *ord.* *sul pont.* *ord.* *erupt* *gliss.* *n*

Pno. *f* *p* *f* *f* *ppp*

(z - one-note tremolo as fast as possible)

ppp

Led.

A

Più mosso, ♩ = 60

sober

Fl. *f* *n* *f* *fade-in from clarinet* *ppp* *mp*

B. Cl. *p* *f* *mf* *fade-in from piano resonance* *n* *p* *n*

Bsn.

Tpt. *Harmon mute* *pp* *Straight mute* *mp*

Tbn. *—* *—* *#* *—*

Vla. *p* *ff* *ord.* *ff p* *p* *ff* *pp < mf >* *n* *p* *Sul C* *ppp <*

Cb. *fade-in from flute* *n* *fff* *pp < fff* *ff p*

Pno. *ff* *pp* *f* *like an echo* *fff* *mf*

very subtle, wavy

Fl. *pp* *ppp < mf > n* *ppp* *f* *f*

Cl. *f pp* *ff* *f pp* *mf* *n* *f p* *pp* *f*

Bsn. *—* *—* *—* *ff* *mf* *ppp* *f*

Tpt. *pp* *pp* *ff* *fp*

Tbn. *ff*

Vla. *fff* *p < f* *mp* *ff* *mp < f > n* *pp* *f* *Sul pont.*

Cb. *Col legno batt.* *Gettato* *Muffle strings* *Sul A* *fade-in from flute* *n* *f* *n* *f* *Sul G*

Pno. *fff* *p* *pp* *p f* *firm* *mp* *ppp* *ff* *Silently depress cluster*

4

48

Fl. *dying out...* $\begin{smallmatrix} 3 \\ - \end{smallmatrix}$
p

Cl. *dying out...* $\begin{smallmatrix} 3 \\ - \end{smallmatrix}$
pp p
firm! and then die out...
 $\begin{smallmatrix} 3 \\ - \end{smallmatrix}$ $\begin{smallmatrix} 3 \\ - \end{smallmatrix}$ $\begin{smallmatrix} 5 \\ - \end{smallmatrix}$

Bsn. ff $\begin{smallmatrix} 3 \\ - \end{smallmatrix}$ p $\begin{smallmatrix} 3 \\ - \end{smallmatrix}$ pp
 $\begin{smallmatrix} 3 \\ - \end{smallmatrix}$ $\begin{smallmatrix} 3 \\ - \end{smallmatrix}$ $\begin{smallmatrix} 5 \\ - \end{smallmatrix}$

Tpt. $\begin{smallmatrix} + \\ - \end{smallmatrix}$ $\begin{smallmatrix} o \\ - \end{smallmatrix}$
 $\begin{smallmatrix} f \\ - \end{smallmatrix}$ $\begin{smallmatrix} fp \\ - \end{smallmatrix}$ $\begin{smallmatrix} + \\ - \end{smallmatrix}$ $\begin{smallmatrix} p \\ - \end{smallmatrix}$
Uninterrupted glissando

Tbn. f $\begin{smallmatrix} pp \\ - \end{smallmatrix}$ $\begin{smallmatrix} + \\ - \end{smallmatrix}$
 $\begin{smallmatrix} b \\ - \end{smallmatrix}$ $\begin{smallmatrix} gliss. \\ - \end{smallmatrix}$

Vla. Tallone $\begin{smallmatrix} 3 \\ - \end{smallmatrix}$
 $\begin{smallmatrix} fff \\ - \end{smallmatrix}$ $\begin{smallmatrix} mf \\ - \end{smallmatrix}$ $\begin{smallmatrix} p \\ - \end{smallmatrix}$
Tallone $\begin{smallmatrix} 3 \\ - \end{smallmatrix}$ $\begin{smallmatrix} 3 \\ - \end{smallmatrix}$ $\begin{smallmatrix} 5 \\ - \end{smallmatrix}$

Cb. $\begin{smallmatrix} f \\ - \end{smallmatrix}$ $\begin{smallmatrix} pp \\ - \end{smallmatrix}$ $\begin{smallmatrix} f \\ - \end{smallmatrix}$

Pno. p $\begin{smallmatrix} mp \\ - \end{smallmatrix}$ $\begin{smallmatrix} pp \\ - \end{smallmatrix}$ $\begin{smallmatrix} mp \\ - \end{smallmatrix}$
 $\begin{smallmatrix} f \\ - \end{smallmatrix}$ $\begin{smallmatrix} mf \\ - \end{smallmatrix}$ $\begin{smallmatrix} p \\ - \end{smallmatrix}$
 $\begin{smallmatrix} 5 \\ - \end{smallmatrix}$

Reo.



B Andante, $\text{♩} = 80$

51

Fl. $\begin{smallmatrix} 3 \\ - \end{smallmatrix}$ $\begin{smallmatrix} 3 \\ - \end{smallmatrix}$ $\begin{smallmatrix} 3 \\ - \end{smallmatrix}$ $\begin{smallmatrix} leggiro \\ - \end{smallmatrix}$
 mf f $\begin{smallmatrix} p \\ - \end{smallmatrix}$

Cl. $\begin{smallmatrix} 3 \\ - \end{smallmatrix}$ $\begin{smallmatrix} 3 \\ - \end{smallmatrix}$ $\begin{smallmatrix} 3 \\ - \end{smallmatrix}$
 mf To B. Cl.
Bass Clarinet in B♭ $\begin{smallmatrix} leggiro \\ - \end{smallmatrix}$

Bsn. $\begin{smallmatrix} 6 \\ - \end{smallmatrix}$ $\begin{smallmatrix} p \\ - \end{smallmatrix}$ $\begin{smallmatrix} p \\ - \end{smallmatrix}$ $\begin{smallmatrix} leggiro \\ - \end{smallmatrix}$
Straight mute

Tpt. $\begin{smallmatrix} o \\ - \end{smallmatrix}$
 fpp f

Tbn. $\begin{smallmatrix} f \\ - \end{smallmatrix}$ $\begin{smallmatrix} mf \\ - \end{smallmatrix}$ $\begin{smallmatrix} pp \\ - \end{smallmatrix}$ $\begin{smallmatrix} f \\ - \end{smallmatrix}$

Vla. $\begin{smallmatrix} p \\ - \end{smallmatrix}$ $\begin{smallmatrix} ff \\ - \end{smallmatrix}$ $\begin{smallmatrix} v \\ - \end{smallmatrix}$ $\begin{smallmatrix} p \\ - \end{smallmatrix}$ $\begin{smallmatrix} f \\ - \end{smallmatrix}$ $\begin{smallmatrix} pizz. \\ - \end{smallmatrix}$
 $\begin{smallmatrix} fff \\ - \end{smallmatrix}$ $\begin{smallmatrix} p \\ - \end{smallmatrix}$ $\begin{smallmatrix} mf \\ - \end{smallmatrix}$
 $\begin{smallmatrix} p \\ - \end{smallmatrix}$ $\begin{smallmatrix} pizz. \\ - \end{smallmatrix}$ $\begin{smallmatrix} leggiro \\ - \end{smallmatrix}$

Cb. $\begin{smallmatrix} p \\ - \end{smallmatrix}$ $\begin{smallmatrix} f \\ - \end{smallmatrix}$ $\begin{smallmatrix} p \\ - \end{smallmatrix}$ $\begin{smallmatrix} ff \\ - \end{smallmatrix}$ $\begin{smallmatrix} v \\ - \end{smallmatrix}$ $\begin{smallmatrix} p \\ - \end{smallmatrix}$ $\begin{smallmatrix} p \\ - \end{smallmatrix}$
 $\begin{smallmatrix} 6 \\ - \end{smallmatrix}$ $\begin{smallmatrix} pp \\ - \end{smallmatrix}$ $\begin{smallmatrix} f \\ - \end{smallmatrix}$ $\begin{smallmatrix} p \\ - \end{smallmatrix}$ $\begin{smallmatrix} fff \\ - \end{smallmatrix}$ $\begin{smallmatrix} p \\ - \end{smallmatrix}$

Pno. $\begin{smallmatrix} pp \\ - \end{smallmatrix}$ f $\begin{smallmatrix} p \\ - \end{smallmatrix}$ $\begin{smallmatrix} ppp \\ - \end{smallmatrix}$ $\begin{smallmatrix} f \\ - \end{smallmatrix}$ firm but lively
 $\begin{smallmatrix} pp \\ - \end{smallmatrix}$ $\begin{smallmatrix} f \\ - \end{smallmatrix}$ $\begin{smallmatrix} p \\ - \end{smallmatrix}$ $\begin{smallmatrix} ppp \\ - \end{smallmatrix}$ $\begin{smallmatrix} f \\ - \end{smallmatrix}$

54

Fl. *N ord.* *p*

B. Cl. *vivo* *To Cl.* *mf*

Bsn. *f* *mp*

Tpt. *leggiero* *N* *mp-p*

Tbn. *p* *fpp* *mf*

Vla. *arco* *n* *f* *Sul A* *ff* *arco battuto* *f* *pizz.* *f*

Cb. *mp* *p* *f* *mf*

Pno. *erupting* *mf* *Sost. Ped.* *p* *Ped.*

C

58

Fl. *H* *f*

B. Cl. *Clarinet in B♭* *n* *f* *subtle, leggiero* *p*

Bsn. *p* *f* *erupting* *p* *mf*

Tpt. *leggiero* *pp* *mp*

Tbn. *subtle, leggiero* *pp*

Vla. *arco* *f* *ff* *mp* *f* *fff p* *Sul pont.* *erupting* *p*

Cb. *mp* *3* *3* *n* *ff* *mp* *f* *fff p* *erupting* *p*

Pno. *erupting* *f* *mp* *p* *subtle, leggiero* *p* *ff* *ff* *ff*

Ped.

63

Fl. *leggiero*
 Cl. *leggiero*
 Bsn. *leggiero*
 Tpt.
 Tbn.
 Vla. *mf*
 Cb. *f*
 Pno. *leggiero*

ord. *mp* *f* *ff*
arco

vivo

67

Fl. *f*
 Cl. *f*
 Bsn. *mp*
 Tpt. *p* *mf*
 Tbn. *p*
 Vla. *pizz.*
 Cb. *mp*
 Pno. *p* *mp* *f*

cantabile, sonoro *f*
pale

vivo, cantabile
p

punta d'arco, batt.
leggiero

arco

pale *mf*

8th

7

Fl. pale *mp*

Cl. pale *p*

Bsn. *mf*

Tpt. *erupting* *p* *f*

Tbn. *ppp* *ff*

Vla. *ord.* *mf*

Cb. *Col legno battuto.* *mf*

arco ord. Sul G *fff*

Pno. *f* *fff* *ped.*

D

Più mosso, $\text{♩} = 100$

Fl. *con fuoco* *f*

Cl. *con fuoco* *f*

Bsn. *f*

Tpt. *austere* *fp*

Tbn. *f* *austere*

Vla. *con fuoco* *ff*

Cb. *mf*

Pno. *percussive* *ff* *soft* *ff* *mf* *ped.*

8

78

Fl.

p subito

C1.

Bsn.

p subito

mf

Tpt.

Tbn.

pp

Vla.

molto legato

Cb.

molto legato

Pno.

ff

mf

p

pp

E

81 *molto legato, flowing*

Fl.

f

C1.

molto legato, flowing

Bsn.

f

Tpt.

Harmon mute

p → *f*

p → *f*

Tbn.

Vla.

ff

molto legato, flowing

Cb.

mf

Pno.

legato, very fluent

mp

83

Fl.

C1.

Bsn.

Tpt.

Tbn.

Vla.

Cb.

Pno.

+ → o
p → f

-

-

-

-

-

-

-

-

85

Fl.

C1.

Bsn.

Tpt.

Tbn.

Vla.

Cb.

Pno.

with subtleness, but present
Gradually open and close.

p

mf

10

88 *molto legato, flowing*

Ffl. *p*

Clt. *p* *molto legato, flowing*

Bsn.

Tpt.

Tbn. *mf* *senza sord.*

Vla. *mf* *flowing*

Cb. *f* *pizz. l.v.*
present, sonorous

Pno. *p* *erupting* *Reo.*

91

Ffl. *fff*

Clt. *fff*

Bsn. *mf* *flowing*

Tpt.

Tbn. *gliss.* *very subtle, flowing*

Vla. *fff*

Cb. *pp* *tallone sharp*

Pno. *mf* *ff* *arco molto legato* *gliss.* *mf*

vivo, con fuoco

mf flowing

11

Fl.

Cl.

Bsn.

Tpt.

Tbn. *Uninterrupted glissando*

Vla. *a little tenser*

Cb. *Uninterrupted glissando*

Pno.

Fl. *3 3 3 3*

Cl. *f*

Bsn.

Tpt.

Tbn.

Vla. *con fuoco*

Cb. *pizz.*

Pno.

12

100

Fl.

Cl.

Bsn.

Tpt.

Tbn.

Vla.

Cb.

Pno.

p

Rédo.

102

Fl.

Cl.

Bsn.

Tpt.

Tbn.

Vla.

Cb.

Pno.

8va-

104 *austere*

F1. *ff*

C1. *austere*
ff

Bsn. *austere*
ff

Tpt. *senza sord.*
f-pp *ff* *p-f-pp* *ff-pp*

Tbn. *senza sord.*
f-pp *ff* *p-f-pp* *ff*

Vla. *ord.*
austere
fff

Cb. *arco austere*
ff

Pno. *con fuoco*
fff

G

flowing

108

F1. *f* *pp* *ff* *p-ff*

C1. *flowing*
f *p-ff* *p-f*

Bsn. *f* *p-f*

Tpt. -

Tbn. -

Vla. *ff* *mp* *ff* *p* *ff*

Cb. *mf*

Pno. *mp* *f subito* *p subito* *con fuoco* *sempre vivo*

8th Ped.

Ped.

14

112

Fl.

C1.

Bsn.

Tpt.

Tbn.

Vla.

Cb.

Pno.

p

legato sempre

(8)

Rédo

116

Fl.

C1.

Bsn.

Tpt.

Tbn.

Vla.

Cb.

very plain, pale

Pno.

loco

very plain, pale

120

Fl. *pp*

C. *ff*
dying out...

Bsn. *pp* *f*

Tpt.

Tbn.

Vla. *p*
mp
dying out...

Cb.

Pno. *mf*
dying out...

15

123

Fl. *mf* *dying out...* *pp*

C. *mf* *dying out...*

Bsn.

Tpt.

Tbn.

Vla. *mf*

Cb.

Pno. *(8)*

16

125

molto rit.

Musical score page 16, measures 125-126. The score includes parts for Flute (Fl.), Clarinet (Cl.), Bassoon (Bsn.), Trumpet (Tpt.), Trombone (Tbn.), Violin (Vla.), Cello (Cb.), and Piano (Pno.). The tempo is marked 125. Measure 125 starts with a rest for Flute, followed by a dynamic *pp* for Clarinet. Measures 126-127 show a melodic line for Violin (Vla.) starting with a dynamic *ff*. The Violin part includes markings "3" over groups of three notes and "firmly" above the staff. The dynamic changes from *ff* to *p* with *fff* as a crescendo. The other instruments remain silent throughout these measures.