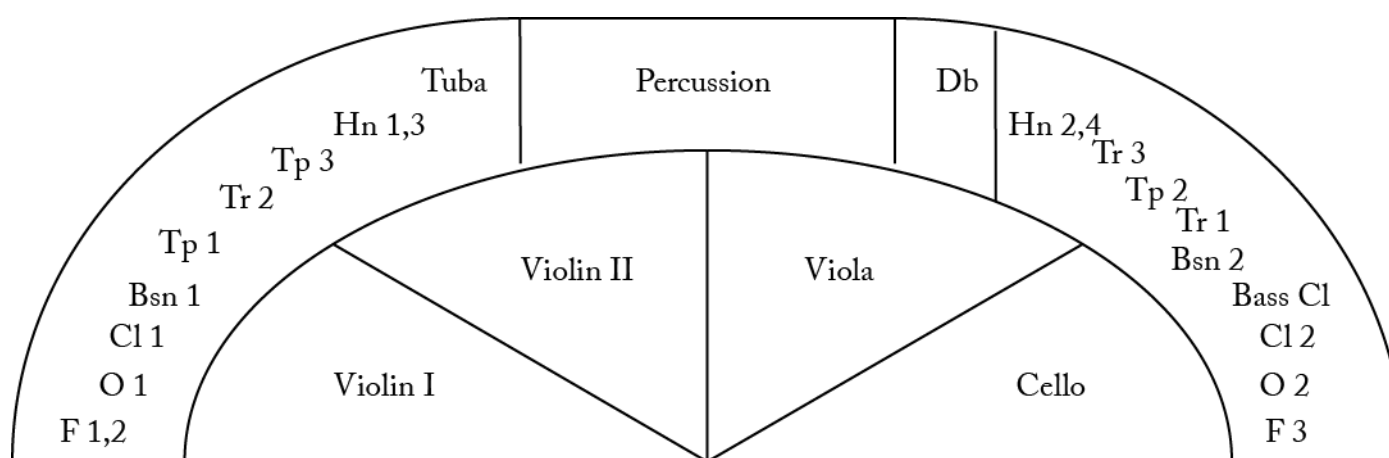


Instrumentation:

- 3 Flutes (1 doubling Piccolo)
- 2 Oboes
- 2 Bb Clarinets
- 1 Bass Clarinet
- 2 Bassoons
- 4 Horns in F
- 3 Trumpets in Bb
- 3 Trombones
- 1 Tuba
- 2 Percussion (3 if necessary)
  - Crotales
  - Vibraphone
  - Tam tam
  - Suspended cymbal
  - Triangle
  - Claves
  - Snare
  - Bass drum
- Strings



Program Notes – Brian Penkrot

The inspiration for *Anisotropic Streaming* is the cosmic background radiation remaining from the Big Bang. In 1964, it was discovered that space was filled with a faint amount of radiation; a relic from the time when slight temperature variance allowed for the coalescence of particles. These particle collections soon had varying masses and therefore varying gravitational pulls, which in turn created the stars and galaxies. Since the universe expanded while the temperature variances allowed for this particle accumulation, the background radiation is patterned in a manner that is anisotropic: a nearly uniform arrangement of the radiation that appears different depending on the observer's orientation. As a formal tool, this phenomenon has suggested a compositional process focused on transition and contextualization.

The concept of anisotropy manifests itself in a number of ways. The first of three sections "collects" individual pitches until those frequencies are no longer perceptible – the listener's mind fuses the pitches into a single yet complex sonority. This fusion is encouraged further by the arrangement of pitches mimicking the overtone series. The second section features a very active and thick texture combining to make a single mass of sound. The texture gradually removes layers to reveal the individual short melodies that make up the mass. The third section rearranges these short melodies, making the high melodies low and the low melodies high. Each melody grows one note longer on each iteration, until each are so long they begin to fuse into a single, complex sonority. In these ways, I attempt to create the same kind of sound but through a shifting perspective, exposing sound's anisotropic construction.



# Anisotropic Streaming

5

F/Picc.

Fl. 2/3

Ob. 1/2

Cl. 1/2

B. Cl.

Bsn. 1/2

Hn. 1/3

Hn. 2/4

Tpt. 1/2

Tpt. 3

Tbn. 1/2

Tbn. 3

Tuba

Perc.

Perc.

Vln. I

Vln. II

Vla.

Vc.

D.B.

The musical score is arranged in a standard orchestral format. The woodwind section includes Flute 2/3, Oboe 1/2, Clarinet 1/2, Bass Clarinet, and Bassoon 1/2. The brass section includes Horns 1/3 and 2/4, Trumpets 1/2 and 3, Trombones 1/2 and 3, and Tuba. The string section includes Violin I and II, Viola, Violoncello, and Double Bass. The percussion section has two staves. The score features various dynamics such as *p*, *pp*, *ppp*, *mp*, and *p*. It includes articulation marks like accents and slurs, as well as performance instructions like *Sul C non vib.* for the cello. The piece is marked with a '5' at the top left, indicating the measure number.

# Anisotropic Streaming

9

F/Picc.

Oboe 1.

Fl. 2/3

pp

3

3

Ob. 1/2

3

3

3

Cl. 1/2

B. Cl.

Bsn. 1/2

Hn. 1/3

3.

ppp

Hn. 2/4

2.

pp

ppp

Tpt. 1/2

Tpt. 3

Tbn. 1/2

Tbn. 3

Tuba

Perc.

Perc.

Vln. I

Div. ASP at tip

V

pppp

3

3

3

Vln. II

Div. ASP at tip

V

pppp

3

3

3

Vla.

pppp

3

3

sim.

Vc.

D.B.