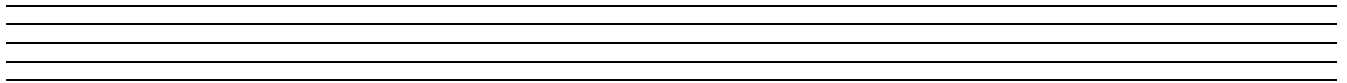


# Lagrange Point

open score for spatialized chamber ensemble

*Dedicated to Neil deGrasse Tyson*

Jordan Nobles



# Lagrange Point

for spatialized chamber ensemble

## About the Piece

*Lagrange Point* was commissioned by the Turning Point ensemble and premiered on June 21, 2012. It is dedicated to Neil deGrasse Tyson.

## PROGRAMME NOTES

A Lagrange Point (named after the Italian-French mathematician Joseph Louis Lagrange) is a position in an orbital configuration of two large bodies where a smaller object, affected only by the combined gravitational pull of the two large masses, can be stationary relative to them (such as a satellite with respect to the Earth and Moon). It is a point in space where the object can theoretically be suspended as each large mass exerts an equal influence upon it. This piece is an attempt to suspend the music at its own "Lagrange point" between motion and silence.

## Performance Notes

### MELODIC CELLS

- *Lagrange Point* is made of numerous melodic cells. Musicians perform any cell, in any order, in their own time, as expressively as possible, for the durations indicated.
- there is no synchronization required or desired in this piece.
- what cells to play, and when to play them, should be decided by each musician independently as long as they are responsive to the other players. A good rule is to stop after completing a cell and listen for a moment before joining in again. Musicians in smaller ensembles can play more often but in larger ensembles should play less often to give space throughout the performance.
- the duration of the piece is variable but should be worked out ahead of time. Players should decide how long to perform and how to end; whether stopping all together or dropping out one at a time.

### FORM

Ideally the piece should start with a few quiet long tones played by the sustaining instruments and, after a short time, the various melodic material should be introduced. Likewise it could end with a few of the long tones trailing off and fading out after everything else has stopped.

### SPATIALIZATION

*Lagrange Point* is written for the performers to be spatially spread about the performance space, preferably surrounding the audience. While it is not vital for the piece to be performed this way, a spatial distribution of musicians will greatly enhance the effect of the piece.

The exact layout will vary depending on the venue and is not important as long as they are evenly distributed throughout the space. Balconies, lofts, etc. can also be utilized as well. Also, if possible, similar instruments (winds, strings, etc.), should not stand together as would be the norm in an orchestral layout but instead should be separated so each member of the group is in a different area of the venue from similar instruments.

*Note: It may be beneficial to rehearse the piece, at first, in a standard layout with all of the musicians together. Then, once the piece is learned, it can be spread out and rehearsed in a spatial configuration.*

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## Play any cells, in any order

Whistle Tone - slow, ad lib., continue for 10-20 seconds

Harmonics - (fundamental in brackets) fade in and fade out, ad lib. dynamic swells (up to mp), play for 10-15 seconds

'Shimmering Harmonics' (timbral trill a la George Crumb) - fade in and out, ad lib. swells (up to mp), play for 10-15 seconds

Harmonic Melodies - fade in and fade out, ad lib. dynamic swells (up to mp), play for 10-15 seconds

## Flute

Trills - 10 to 15 seconds, fast trill, fade in and fade out (play in other octaves if desired)

Trills - 10 to 15 seconds, fast trill, fade in and fade out (play in other octaves if desired)

Flutter Tongue - very quietly and subtle, hold for 5-10 seconds, fading in and out

Flutter Tongue - very quietly and subtle, hold for 5-10 seconds, fading in and out

Melodic Cells - ♩=60 or slower, play in other octaves if desired as long as they can be quiet and very legato

Melodic Cells - ♩=60 or slower, play in other octaves if desired as long as they can be quiet and very legato

Grace Notes - quiet and subtle, fade out

Grace Notes - quiet and subtle, fade out

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Play any cells, in any order

Long Tones - fade in and fade out, ad lib. dynamic swells (up to *mp*), play for 10-15 seconds, play in other octaves if desired

Six musical staves for Long Tones exercises. Each staff shows a single note with a fermata and a dynamic marking: *pp*, *pp*, *sim.*, *pp*, *pp*, *pp*.

Pulse - very quietly pulse for 5-10 seconds, fading in and out, accel and decel with the dynamic, play in other octaves if desired

Six musical staves for Pulse exercises. Each staff shows a series of notes with a 5-second duration bracket and dynamic markings: *ppp*, *p*, *ppp*.

Trills - 10 to 15 seconds, fade in and fade out, vary the speed of the trill with the dynamic, play in other octaves if desired

Six musical staves for Trills exercises. Each staff shows a trill with a fermata and a dynamic marking: *pp*, *pp*, *sim.*, *pp*, *pp*, *pp*.

Melodic Cells - ♩=60 or slower, play in other octaves if desired as long as they can be quiet and very legato

Eight musical staves for Melodic Cells exercises. Each staff shows a short melodic phrase with dynamic markings: *pp*, *p*, *pp*, *p*, *pp*, *p*, *p*, *p*.

Grace Notes - quiet and subtle, fade out

Eight musical staves for Grace Notes exercises. Each staff shows a grace note followed by a main note with a fermata and a dynamic marking: *p*, *p*, *sim.*, *p*, *p*, *p*, *p*, *p*.

Clarinet in B $\flat$   
(or Bass Clarinet)

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## Play any cells, in any order

Long Tones - fade in and fade out, ad lib. dynamic swells (up to *mp*), play for 10-15 seconds, play in other octaves if desired

Six musical staves for Long Tones exercises. Each staff shows a single note with a dynamic marking (*pp*, *sim.*, or *mp*) and a swell symbol.

Flutter Tongue - very quietly and subtle, hold for 10-15 seconds, fading in and out

Seven musical staves for Flutter Tongue exercises. Each staff shows a note with a 'flz' marking and a dynamic marking (*pp* or *sim.*).

Trills - 10 to 15 seconds, fade in and fade out, vary the speed of the trill with the dynamic, play in other octaves if desired

Six musical staves for Trills exercises. Each staff shows a trill with a 'tr' marking and a dynamic marking (*pp* or *sim.*).

Melodic Cells -  $\text{♩} = 60$  or slower, play in other octaves if desired as long as they can be quiet and very legato

Eight musical staves for Melodic Cells exercises. Each staff shows a melodic phrase with dynamic markings (*pp*, *p*, *mp*) and articulation marks.

Grace Notes - quiet and subtle, fade out

Eight musical staves for Grace Notes exercises. Each staff shows a note with a grace note and a dynamic marking (*p* or *sim.*).

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Play any cells, in any order

High tones - hold for 10-20 seconds each, fade in and out, ad lib. dynamic swells (up to *mp*)

Six musical staves in bass clef, each with a single note and a fermata. The notes are: G4, A4, B4, C5, B4, and A4. The first three staves have a dynamic marking of *pp* with a swell symbol. The fourth staff has a dynamic marking of *sim.* The fifth and sixth staves have no dynamic marking.

Melodic Cells - ♩=60 or slower, play in other octaves if desired as long as they can be quiet and very legato

Eight musical staves in bass clef, each with a melodic cell. The first four staves have dynamic markings of *pp* and *p* with a swell symbol. The fifth and sixth staves have dynamic markings of *pp* and *p* with a swell symbol. The seventh and eighth staves have dynamic markings of *pp* and *p* with a swell symbol and a triplet marking.

Low Notes - hold for 20 seconds or longer, fade in and out, play in other octaves if desired

Six musical staves in bass clef, each with a single note and a fermata. The notes are: G2, F2, E2, D2, C2, and B1. The first three staves have a dynamic marking of *pp* with a swell symbol. The fourth staff has a dynamic marking of *sim.* The fifth and sixth staves have no dynamic marking.

Trumpet in B $\flat$   
(or Flugel Horn)

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## Play any cells, in any order

Pulse - very quietly pulse for 5-10 seconds, fading in and out, accel and decel with the dynamic, play in other octaves if desired

5 secs. *ppp* *p* *ppp*

5 secs. *ppp* *p* *ppp*

5 secs. *ppp* *p* *ppp*

5 secs. *ppp* *p* *ppp*

5 secs. *ppp* *p* *ppp*

5 secs. *ppp* *p* *ppp*

Trills - 10 to 15 seconds, fade in and fade out, vary the speed of the trill with the dynamic, play in other octaves if desired

*tr* *pp*

*tr* *pp*

*tr* *sim.*

*tr* *pp*

*tr* *pp*

*tr* *pp*

Melodic Cells -  $\text{♩} = 60$  or slower, play in other octaves if desired as long as they can be quiet and very legato

*pp* *p*

*pp* *p*

*pp* *p*

*p* *pp*

*mp* *pp*

*p* *mp*

*p* *pp*

*p* *mp* *pp*

Grace Notes - quiet and subtle, fade out (octave transposition permissible as long as dynamics can be observed)

*p*

*p*

*sim.*

*p*

*p*

*sim.*

*p*

*p*



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## Play any cells, in any order

Long Tones - fade in and fade out, ad lib. dynamic swells (up to **mp**), play for 10-15 seconds, play in other octaves if desired

Six musical staves for Long Tones exercises. Each staff shows a single note with a dynamic marking: *pp*, *pp*, *sim.*, and three instances of *pp*.

Flutter Tongue - very quietly and subtle, hold for 10-15 seconds, fading in and out

Seven musical staves for Flutter Tongue exercises. Each staff shows a note with a 'flz' marking and a dynamic marking: *pp*, *pp*, *sim.*, and four instances of *pp*.

Trills - 10 to 15 seconds, fade in and fade out, vary the speed of the trill with the dynamic, play in other octaves if desired

Six musical staves for Trills exercises. Each staff shows a trill with a 'tr' marking and a dynamic marking: *pp*, *pp*, *sim.*, and three instances of *pp*.

Melodic Cells - ♩=60 or slower, play in other octaves if desired as long as they can be quiet and very legato

Eight musical staves for Melodic Cells exercises. Each staff shows a melodic phrase with dynamic markings: *pp* < *p*, *pp* < *p*, *pp* < *p*, *p* 3 *pp*, *pp* < *mp* *pp*, *pp* < *p*, *pp* < *p*, and *pp* < 3 *p*.

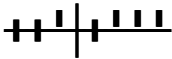
Grace Notes - quiet and subtle, fade out

Eight musical staves for Grace Notes exercises. Each staff shows a note with a grace note and a dynamic marking: *p*, *p*, *sim.*, and four instances of *p*.

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Play any cells in any order; let all notes ring throughout; initial pedal positions: D4 C4 B4 | E4 F4 G4 Ab 

### Effects - very softly, and infrequently

Whistle Sound: Slide left hand lengthwise on the wire strings very slowly, release at the top and let notes ring.

Gong Sound: Hit, with an open palm, a large cluster of low wire strings, like a quiet gong. Let ring.

Falling-hail Effect: very slow, very quiet descending glisses with the back of the fingernails. Fade in and out.

### Fast Repeated Cells - repeat for 10 -15 sec., fade in and out, very quiet and legato, accel. and decel with volume, play in any octave

### Melodic Cells - (♩ = 60-90) - legato, do not repeat, molto espressivo, play in any octave

# Harp

Melodic Cells cont. - (♩ = 60-90) - legato, do not repeat, molto espressivo, play in any octave

Five musical staves showing melodic cells for harp. Each staff contains a sequence of notes with dynamic markings (p, pp, mp) and slurs indicating phrasing.

Ostinati - (♩ = 80-120) - very rubato, accel and decel freely, repeat as long as desired, change octaves with either hand freely

Two grand staff musical examples of ostinati. Each example shows a repeating melodic line in the right hand and a corresponding line in the left hand, both starting with a piano (p) dynamic.

Chords - arpeggiate up or down, play in any octave

Six grand staff musical examples of chords. Each example shows a chord with a wavy line indicating arpeggiation, starting with a mezzo-piano (mp) dynamic.

Harmonic Chords - play in any octave as long as they resonate well

Eight grand staff musical examples of harmonic chords. Each example shows a chord with a circled note above it, indicating a harmonic, in the bass clef.

Low Notes - play anytime (even while playing another cell), let ring, do not repeat immediately after

Seven grand staff musical examples of low notes. Each example shows a single note in the bass clef with a circled note above it, indicating a low note, and a dynamic marking (mp).

Piano

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Play any cells in any order, sustain pedal down throughout

High Tones - slowly, quietly and sparsely, very rubato, avoid a regular rhythm or pulse

8<sup>va</sup>

pp  
Ped. →

15<sup>ma</sup>

pp  
Ped. →

Fast Repeated Cells - repeat for 10 -15 sec., fade in and out, very quiet and legato, accel. and decel with volume

*p*    *p*    *sim.*

Pulses - (♩=60 or slower) play in any mid to octaves, keep sustain pedal down between cells

decel  
pp < p > pp  
Ped. →

decel  
pp < p > pp

decel  
pp < p > pp

decel  
pp < p > pp

decel  
pp < p > pp

decel  
pp < p > pp

decel  
pp < p > pp

decel  
pp < p > pp

decel  
pp < p > pp

Low Notes - play anytime (even while playing another cell), let ring, do not repeat immediately after

*mp* 8<sup>vb</sup>  
Ped. →

8<sup>vb</sup>

Piano

Melodic Cells - (♩ = 60-90) - legato, do not repeat, molto espressivo, play in any octave

This section contains ten musical staves, each showing a different melodic cell. The first staff starts with a piano (*p*) dynamic and features a half note followed by a dotted half note. The second staff is marked *mp* and includes a triplet of eighth notes. The third staff starts with *p* and features a triplet of eighth notes. The fourth staff shows a dynamic range from *pp* to *p* to *pp*. The fifth staff starts with *p* and includes an *8vb* marking. The sixth staff shows a dynamic range from *p* to *pp*. The seventh staff shows a dynamic range from *pp* to *p* to *pp*. The eighth staff starts with *mp* and ends with *pp*. The ninth staff shows a dynamic range from *p* to *mp* to *p*.

Ostinati - (♩ = 80-120) - very rubato, accel and decel freely, repeat as long as desired, change octaves with either hand freely

This section contains two musical staves for ostinati. Both staves begin with a piano (*pp*) dynamic. The first staff includes a *Ped.* marking with a right-pointing arrow. The second staff also includes a *Ped.* marking with a right-pointing arrow.

Chords - arpeggiate up or down, play in any octave

This section contains six musical staves, each showing a different chord arpeggiation. The first staff is marked *mp*. The chords are: a triad of G4, B4, D5; a triad of G4, B4, D5 with a dotted half note on G4; a triad of G4, B4, D5 with a dotted half note on G4 and a dotted half note on B4; a triad of G4, B4, D5 with a dotted half note on G4 and a dotted half note on B4; a triad of G4, B4, D5 with a dotted half note on G4 and a dotted half note on B4; and a triad of G4, B4, D5 with a dotted half note on G4 and a dotted half note on B4.

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Play any cells, in any order

Humming - hold for a full breath, always quiet, play in whatever octave fits your range best  
(Optional - open to any vowel and close again to mmm)

pp mmm    pp mmm    pp mmm    pp mmm    pp mmm    pp mmm

pp mmm    pp mmm    pp mmm

pp mmm    pp mmm    pp mmm

Melodic Cells - ♩=60 or slower, play in other octaves if desired as long as they can be quiet and very legato

pp mmm    pp mmm    pp mmm

pp p    pp p    pp p

[u] [o]    [i]    [u]

pp p    p pp    pp mp pp

[o] [a]    [o] [i]

pp p    pp p    pp p

[e] [o]    [u]

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Play any cells in any order; let all notes ring as much as possible

Fast Repeated Cells - repeat for 10 -15 sec., fade in and out, very quiet and legato, accel. and decel with volume

Fast Repeated Cells musical notation consisting of ten short melodic phrases in 8/8 time. The first two phrases are marked with a hairpin indicating a crescendo to a *p* dynamic. The third phrase is marked *sim.* (sustained). The phrases are: 1) G4-A4-B4-C5, 2) G4-A4-B4-C5, 3) G4-A4-B4-C5, 4) G4-A4-B4-C5, 5) G4-A4-B4-C5, 6) G4-A4-B4-C5, 7) G4-A4-B4-C5, 8) G4-A4-B4-C5, 9) G4-A4-B4-C5, 10) G4-A4-B4-C5.

Melodic Cells - (♩ = 60-90) - legato, do not repeat, molto espressivo, play in any octave

Melodic Cells musical notation consisting of six phrases in 8/8 time. 1) G4-A4-B4-C5, marked *p*. 2) G4-A4-B4-C5, marked *mp* with a triplet. 3) G4-A4-B4-C5, marked *p* with a triplet. 4) G4-A4-B4-C5, marked *pp* with a hairpin. 5) G4-A4-B4-C5, marked *p* with an 8<sup>vb</sup> marking. 6) G4-A4-B4-C5, marked *p*.

Melodic Cells cont. - (♩ = 60-90) - legato, do not repeat, molto espressivo, play in any octave

Melodic Cells cont. musical notation consisting of six phrases in 8/8 time. 1) G4-A4-B4-C5, marked *p* with a hairpin to *pp*. 2) G4-A4-B4-C5, marked *p* with a hairpin to *pp*. 3) G4-A4-B4-C5, marked *pp* with a hairpin to *p* to *pp*. 4) G4-A4-B4-C5, marked *mp* with a hairpin to *pp*. 5) G4-A4-B4-C5, marked *p* with a hairpin to *mp* to *p*. 6) G4-A4-B4-C5, marked *p* with a hairpin to *mp* to *p*.

Sliding Chords - play the first chord, hold a second, and then slide up or down a whole step (do not restrike)

Sliding Chords musical notation consisting of five phrases in 8/8 time. 1) G4-A4-B4-C5, marked *mp* with a hairpin to *p*. 2) G4-A4-B4-C5, marked *mp* with a hairpin to *p*. 3) G4-A4-B4-C5, marked *mp* with a hairpin to *p*. 4) G4-A4-B4-C5, marked *mp* with a hairpin to *p* to *pp*. 5) G4-A4-B4-C5, marked *mp* with a hairpin to *p* to *pp*.

Natural or Artifical Harmonics - let ring

Natural or Artifical Harmonics musical notation consisting of six phrases in 8/8 time. 1) G4-A4-B4-C5, marked *pp*. 2) G4-A4-B4-C5, marked *pp*. 3) G4-A4-B4-C5, marked *pp*. 4) G4-A4-B4-C5, marked *pp*. 5) G4-A4-B4-C5, marked *pp*. 6) G4-A4-B4-C5, marked *pp*.

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## Play any cells, in any order

Bowed Notes - bow with bass or cello bow, any of the following notes (or combinations), play in any octave, let ring

Six musical staves, each showing a single note with a bow hair icon and a dynamic marking of *p*. The notes are: G4, G4, G4, A4, B4, and C5.

Tremolos - hold for 10-20 seconds each, fade in and out, change octaves if desired

Eight musical staves showing tremolos on notes G4, A4, B4, and C5. The first four staves are in G major, and the last four are in C major.

Trills - 10 to 15 seconds, fast trill, fade in and fade out, extreme sul ponticello (play in other octaves if desired)

Six musical staves showing trills on notes G4, A4, B4, and C5. The first three are in G major, the fourth is in C major, and the last two are in G major.

Tremolo - 10 to 15 seconds, fast tremolo, fade in and fade out, extreme sul ponticello (play in other octaves if desired)

Six musical staves showing tremolos on chords G4, A4, B4, and C5. The first three are in G major, the fourth is in C major, and the last two are in G major.

Rocking Bows - approx. ♩=60, repeat 5 - 10 seconds before the held note, sul ponticello, very quietly, like a whisper

Three musical staves showing rocking bows with sixteenth notes and a held note. The first two are in G major, and the third is in C major.



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Play any cells in any order

Fast quiet Tremolos - play for 10 - 20 seconds, fading in and fading out. Use VERY soft mallets

Musical notation for cell 1: Treble clef, bass clef. Treble staff has a dotted half note G4. Bass staff has a dotted half note G2. A tremolo symbol is above the G4 note. Dynamics: *pp* in both staves and a *pp* hairpin below.

Musical notation for cell 2: Treble clef, bass clef. Treble staff has a dotted half note A4. Bass staff has a dotted half note G2. A tremolo symbol is above the A4 note. Dynamics: *pp* in both staves and a *pp* hairpin below.

Musical notation for cell 3: Treble clef, bass clef. Treble staff has a dotted half note B4. Bass staff has a dotted half note G2. A tremolo symbol is above the B4 note. Dynamics: *pp* in both staves and a *pp* hairpin below.

Musical notation for cell 4: Treble clef, bass clef. Treble staff has a dotted half note C5. Bass staff has a dotted half note G2. A tremolo symbol is above the C5 note. Dynamics: *pp* in both staves and *sim.* below.

Musical notation for cell 5: Treble clef, bass clef. Treble staff has a dotted half note D5. Bass staff has a dotted half note G2. A tremolo symbol is above the D5 note. Dynamics: *pp* in both staves.

Musical notation for cell 6: Treble clef, bass clef. Treble staff has a dotted half note E5. Bass staff has a dotted half note G2. A tremolo symbol is above the E5 note. Dynamics: *pp* in both staves.

Musical notation for cell 7: Treble clef, bass clef. Treble staff has a dotted half note F5. Bass staff has a dotted half note G2. A tremolo symbol is above the F5 note. Dynamics: *pp* in both staves.

Musical notation for cell 8: Treble clef, bass clef. Treble staff has a dotted half note G5. Bass staff has a dotted half note G2. A tremolo symbol is above the G5 note. Dynamics: *pp* in both staves.

Musical notation for cell 9: Treble clef, bass clef. Treble staff has a dotted half note A5. Bass staff has a dotted half note G2. A tremolo symbol is above the A5 note. Dynamics: *pp* in both staves.

Musical notation for cell 10: Treble clef, bass clef. Treble staff has a dotted half note B5. Bass staff has a dotted half note G2. A tremolo symbol is above the B5 note. Dynamics: *pp* in both staves.

Musical notation for cell 11: Treble clef, bass clef. Treble staff has a dotted half note C6. Bass staff has a dotted half note G2. A tremolo symbol is above the C6 note. Dynamics: *pp* in both staves.

Musical notation for cell 12: Treble clef, bass clef. Treble staff has a dotted half note D6. Bass staff has a dotted half note G2. A tremolo symbol is above the D6 note. Dynamics: *pp* in both staves.

Musical notation for cell 13: Treble clef, bass clef. Treble staff has a dotted half note E6. Bass staff has a dotted half note G2. A tremolo symbol is above the E6 note. Dynamics: *pp* in both staves.

Musical notation for cell 14: Treble clef, bass clef. Treble staff has a dotted half note F6. Bass staff has a dotted half note G2. A tremolo symbol is above the F6 note. Dynamics: *pp* in both staves.

Musical notation for cell 15: Treble clef, bass clef. Treble staff has a dotted half note G6. Bass staff has a dotted half note G2. A tremolo symbol is above the G6 note. Dynamics: *pp* in both staves.

Musical notation for cell 16: Treble clef, bass clef. Treble staff has a dotted half note A6. Bass staff has a dotted half note G2. A tremolo symbol is above the A6 note. Dynamics: *pp* in both staves.

Glockenspiel  
and/or Crotales

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## Play any cells, in any order

Single Notes - play very quietly with plastic mallets, quite sparsely and with no regular pulse

15 *ppp* 15 *ppp* 15 *sim.* 15 15 15

Grace Notes - play very quietly with plastic mallets, very sparsely and with no regular pulse

15 *ppp* 15 *ppp* 15 *sim.* 15 15 15 15 15 15

## Unpitched Percussion

Tam-Tam (or large gongs) - roll quietly with very soft mallets, at least a minute or longer, varying the dynamic and timbre

15 *pp* l.v.

Cymbals (various sizes) - bow very quietly with a bass or cello bow, varying the dynamic and timbre, let ring

small 15 *p* l.v. medium 15 *p* l.v. large 15 *p* l.v.

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Play any cells, in any order

Artificial Harmonics - hold for 10-20 seconds each

Natural Harmonics - hold for 10-20 seconds each

Trills - 10 to 15 seconds, fast trill, fade in and fade out, extreme sul ponticello (play in other octaves if desired)

Tremolo - 10 to 15 seconds, fast tremolo, fade in and fade out, extreme sul ponticello (play in other octaves if desired)

Rocking BOWS - approx. ♩=60, repeat 5 - 10 seconds before the held note, sul ponticello, very quietly, like a whisper

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Play any cells, in any order

Artificial Harmonics - hold for 10-20 seconds each

Natural Harmonics - hold for 10-20 seconds each

Trills - 10 to 15 seconds, fast trill, fade in and fade out, extreme sul ponticello (play in other octaves if desired)

Tremolo - 10 to 15 seconds, fast tremolo, fade in and fade out, extreme sul ponticello (play in other octaves if desired)

Rocking BOWS - approx. ♩=60, repeat 5 - 10 seconds before the held note, sul ponticello, very quietly, like a whisper

# Lagrange Point

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Play any cells, in any order

Artificial Harmonics - hold for 10 or more seconds each

*pp*

Melodic Cells - ♩=60 or slower, play in other octaves if desired as long as they can be quiet and very legato

*pp* < *p* >  
*pp* < *p* >  
*pp* < *p* >  
*p* < *pp* >  
*pp* < *mp* > *pp*  
*pp* < *p* >  
*pp* < *p* >  
*pp* < *p* >

Tremolo - 10 to 15 seconds, fast tremolo, fade in and fade out, extreme sul ponticello (play in other octaves if desired)

< *pp* >  
< *pp* >  
< *pp* >  
*sim.*  
< *pp* >  
< *pp* >

Low Notes - hold for 10 seconds or longer, fade in and out, play in other octaves if desired

< *pp* >  
< *pp* >  
< *pp* >  
*sim.*  
< *pp* >  
< *pp* >

# Lagrange Point

for spatialized chamber ensemble

Dedicated to Neil deGrasse Tyson

Play any cells, in any order

Artificial Harmonics - hold for 10 or more seconds each

pp

Melodic Cells - ♩=60 or slower, play in other octaves if desired as long as they can be quiet and very legato

pp < p >

pp < p >

pp < p >

p < 3 > ppp

pp < mp > pp

pp < p >

pp < p >

pp < 3 > p

Tremolo - 10 to 15 seconds, fast tremolo, fade in and fade out, extreme sul ponticello (play in other octaves if desired)

pp

pp

pp

sim.

Low Notes - hold for 10 seconds or longer, fade in and out, play in other octaves if desired

pp

pp

pp

sim.