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 thing 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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Flute

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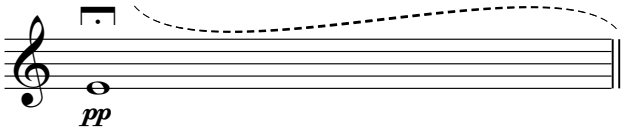
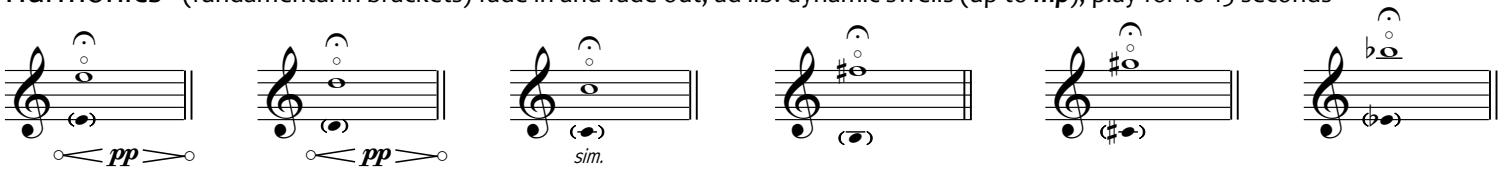
Play any cells, in any order

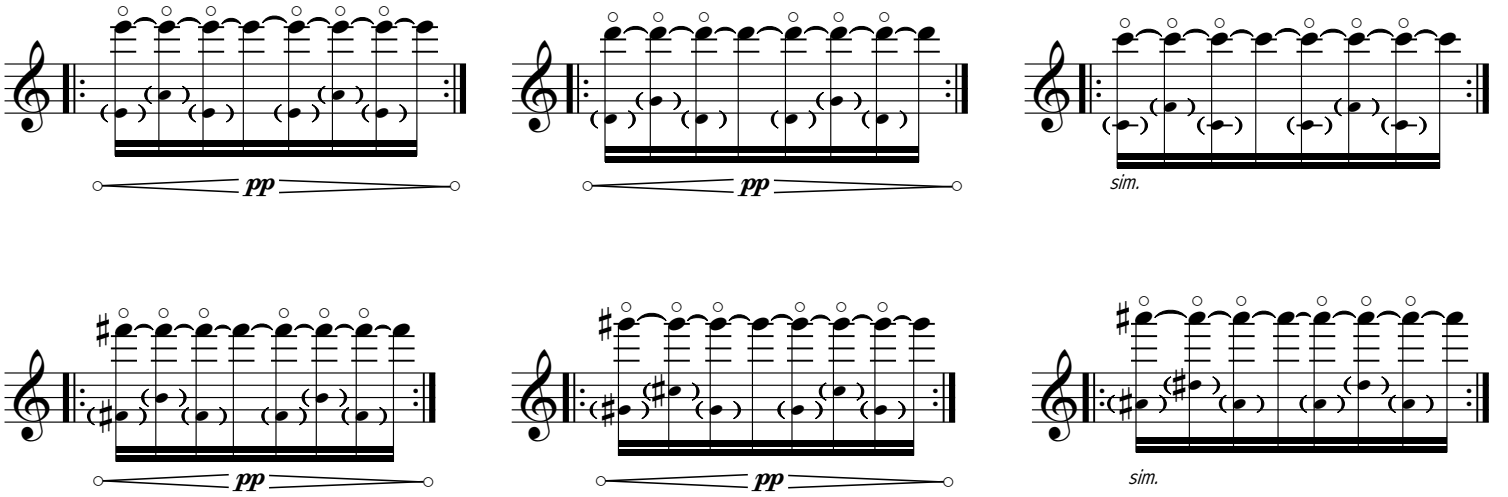
Whistle Tone - slow, ad lib., continue for 10-20 seconds



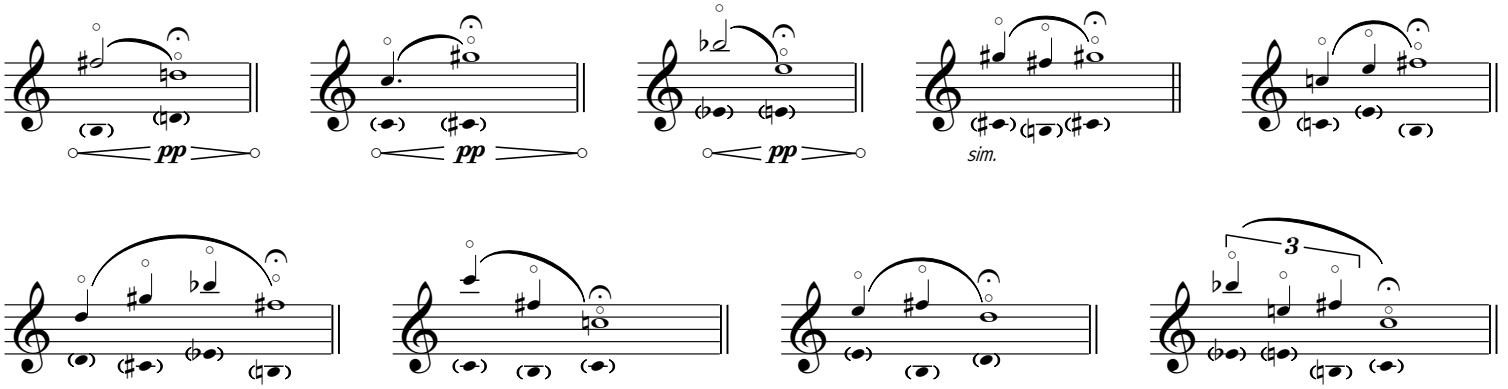
Harmonics - (fundamental in brackets) fade in and fade out, ad lib. dynamic swells (up to ***mp***), play for 10-15 seconds



'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



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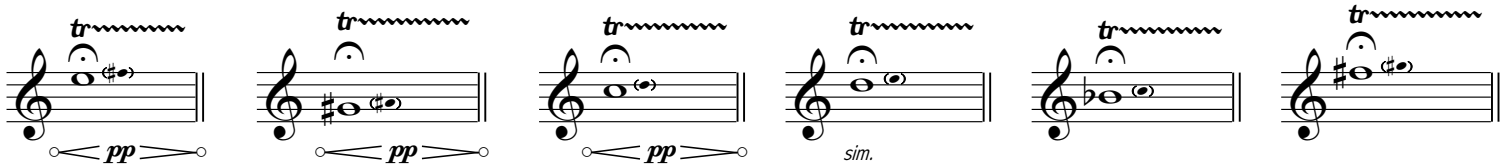
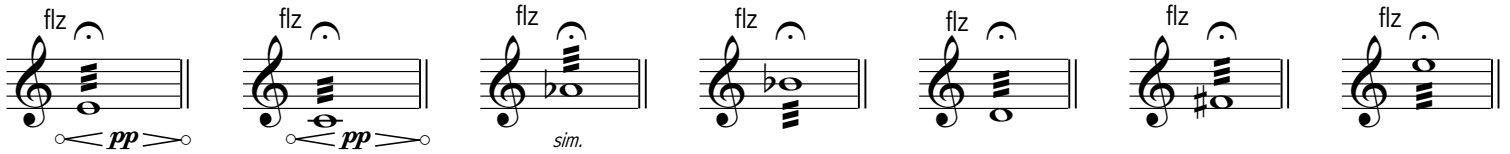
Flute

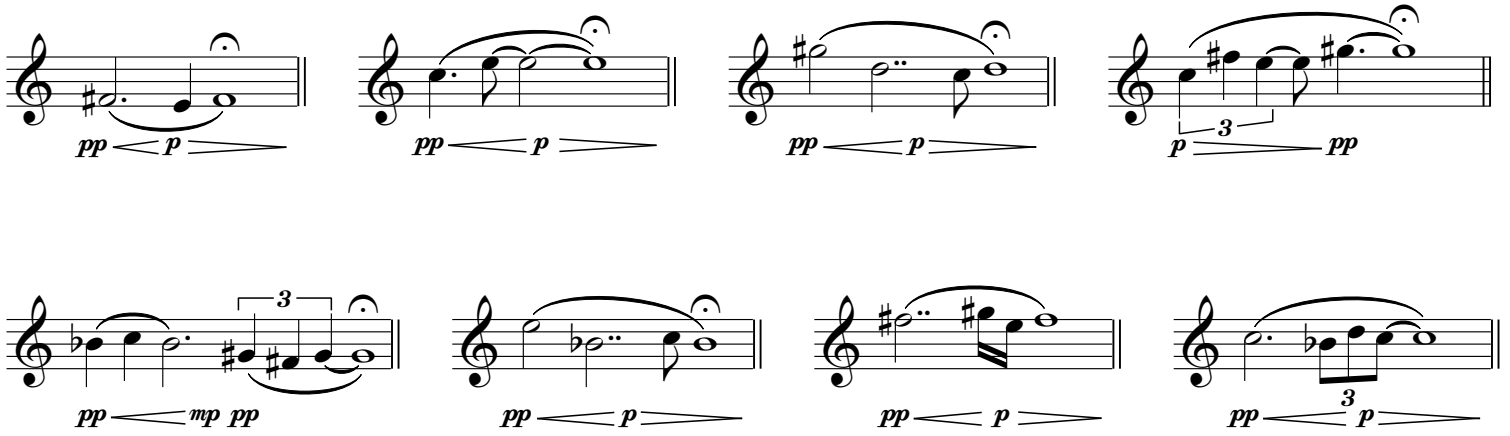
Trills - 10 to 15 seconds, fast trill, fade in and fade out (play in other octaves if desired)



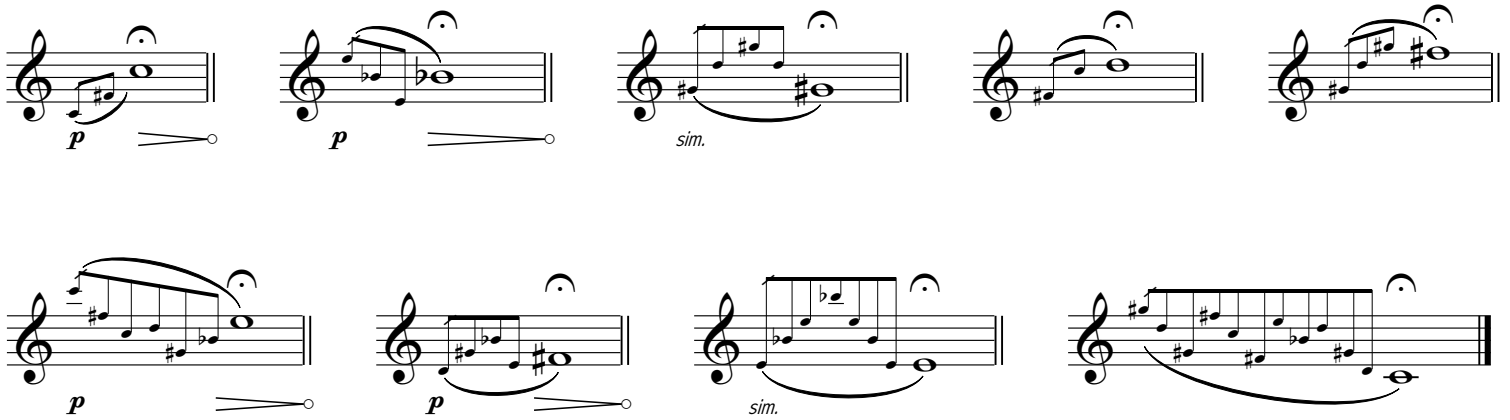
Flutter Tongue - very quietly and subtle, hold for 5-10 seconds, fading in and out



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



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Oboe

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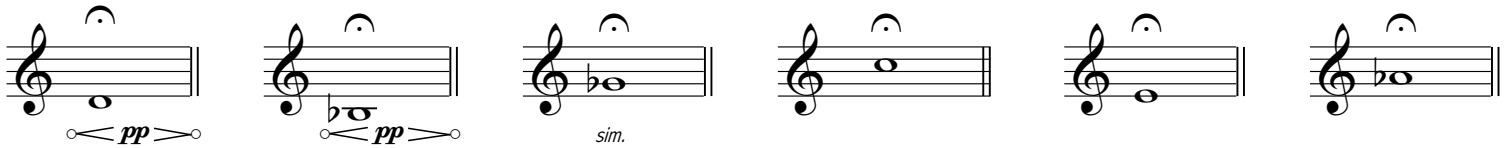
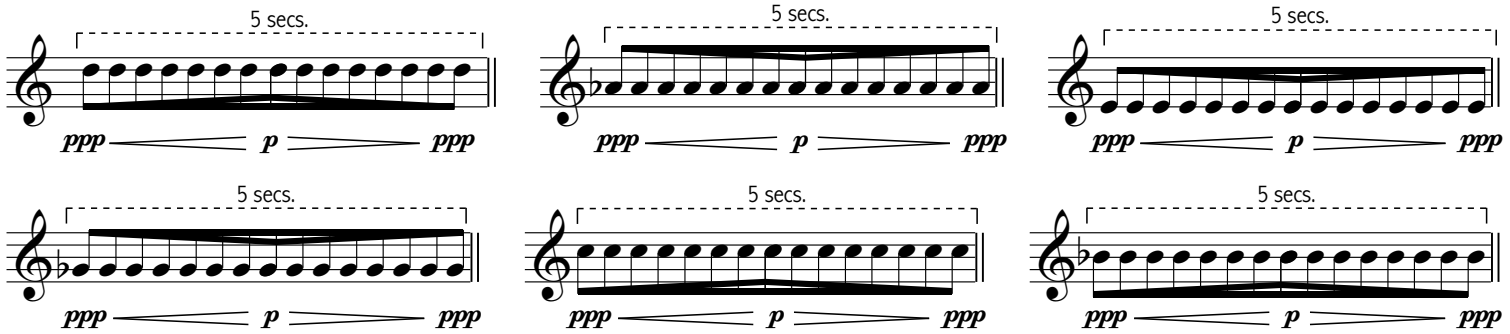
Play any cells, in any order

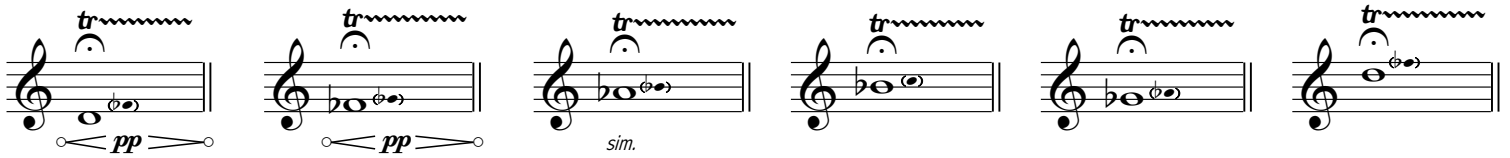
Long Tones - fade in and fade out, ad lib. dynamic swells (up to ***mp***), play for 10-15 seconds, play in other octaves if desired



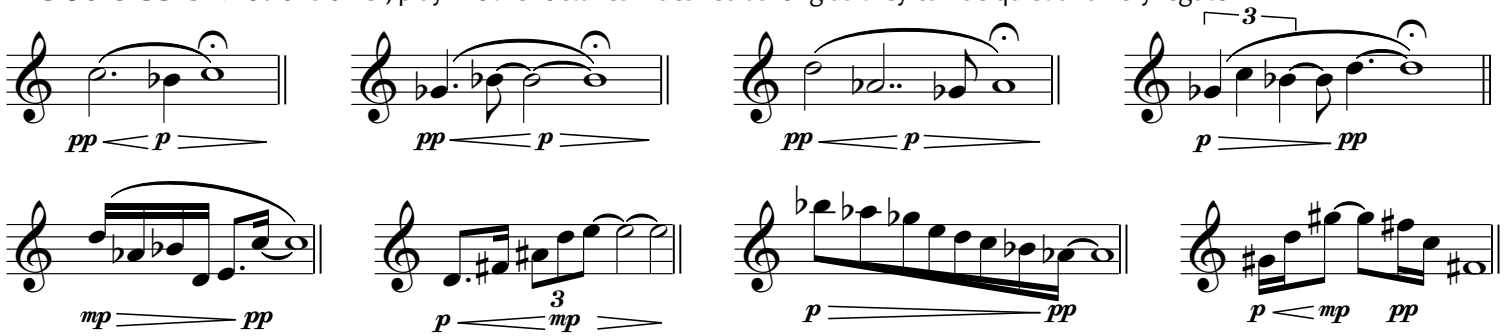
Pulse - very quietly pulse for 5-10 seconds, fading in and out, accel and decel with the dynamic, play in other octaves if desired



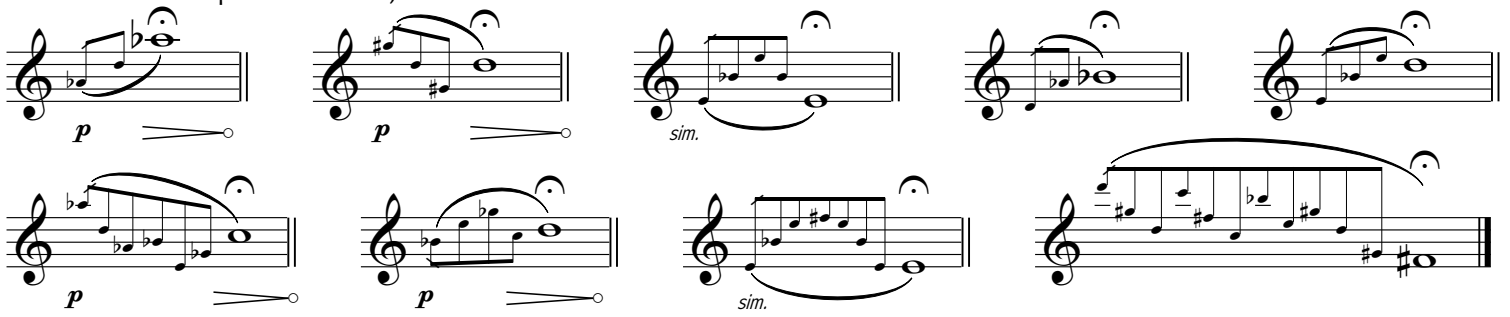
Trills - 10 to 15 seconds, fade in and fade out, vary the speed of the trill with the dynamic, play in other octaves if desired



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



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Clarinet in B♭
(or Bass Clarinet)

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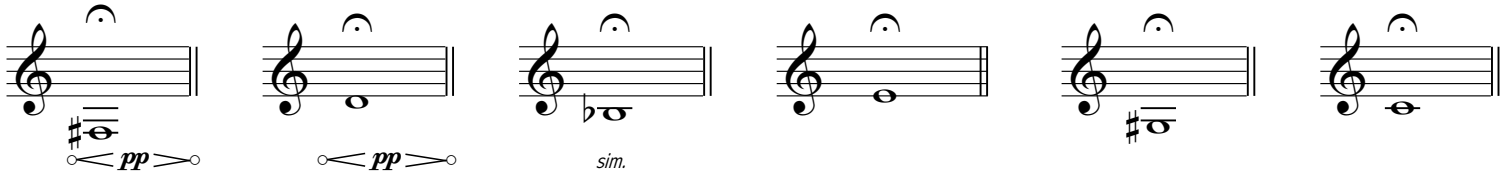
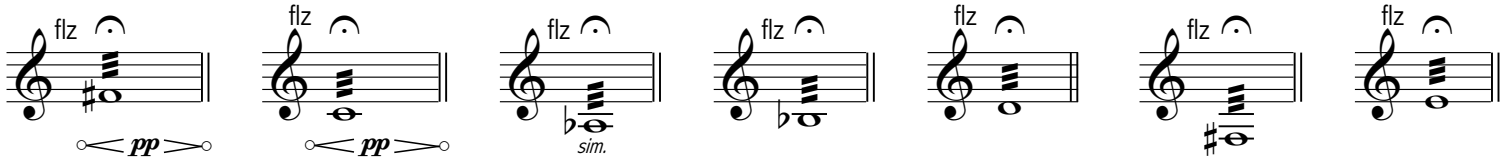
Play any cells, in any order

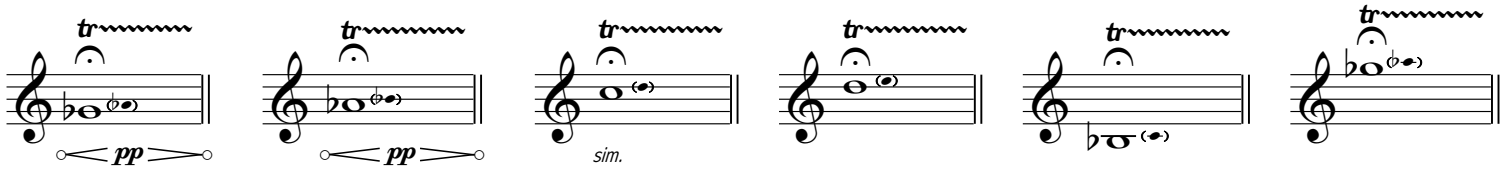
Long Tones - fade in and fade out, ad lib. dynamic swells (up to ***mp***), play for 10-15 seconds, play in other octaves if desired



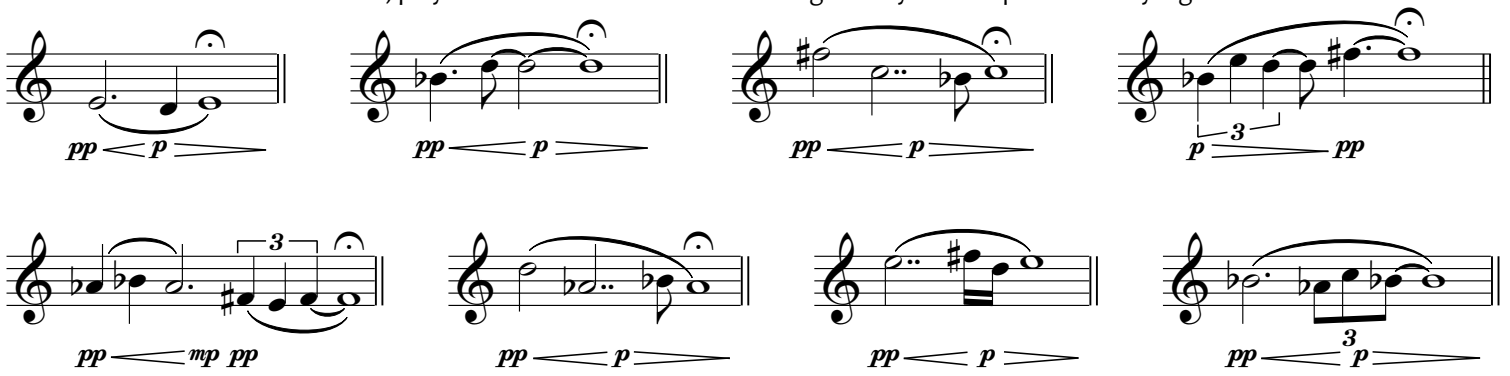
Flutter Tongue - very quietly and subtle, hold for 10-15 seconds, fading in and out



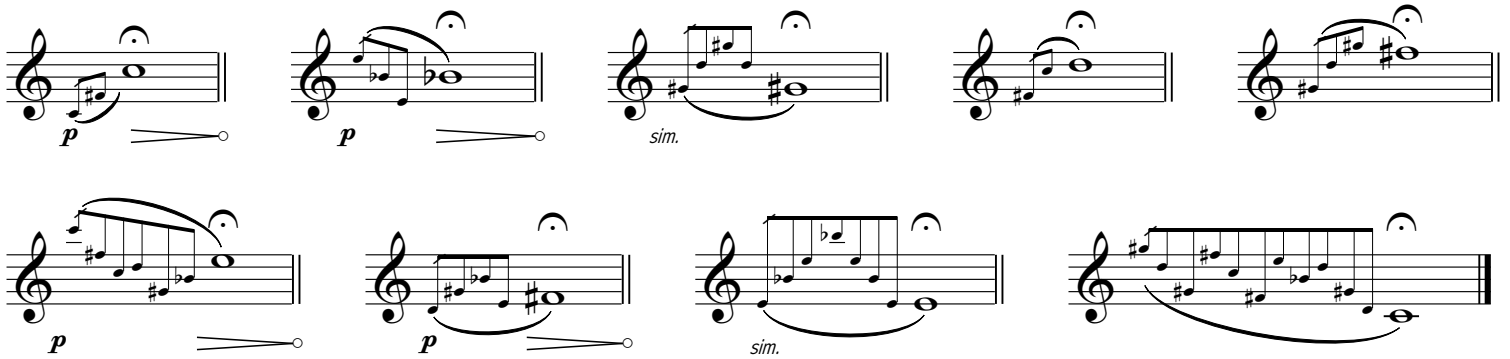
Trills - 10 to 15 seconds, fade in and fade out, vary the speed of the trill with the dynamic, play in other octaves if desired



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



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Bassoon

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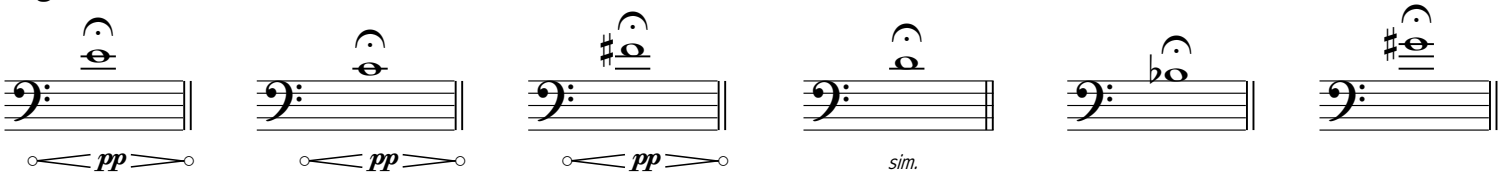
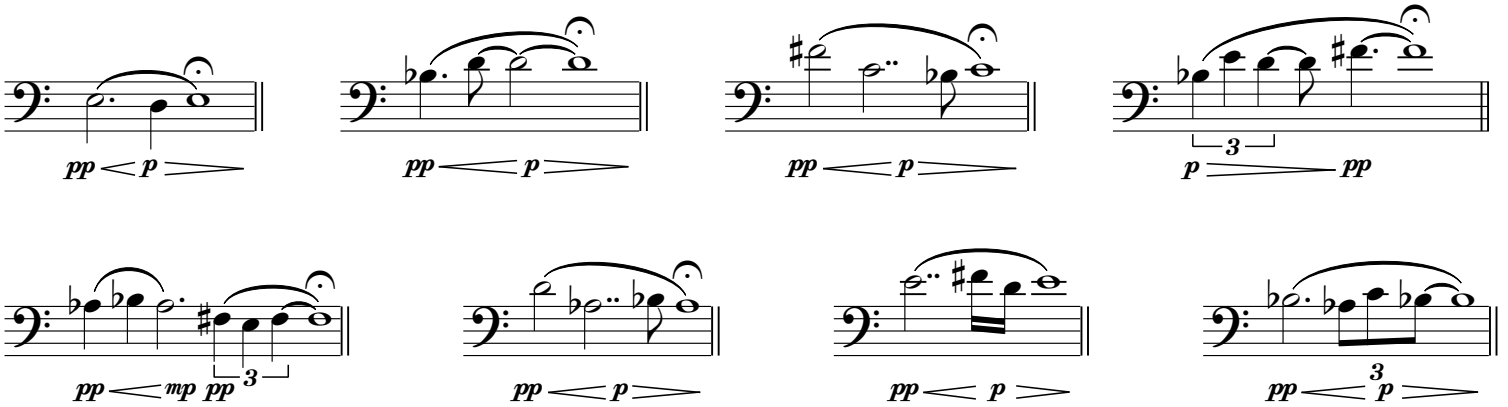
Play any cells, in any order

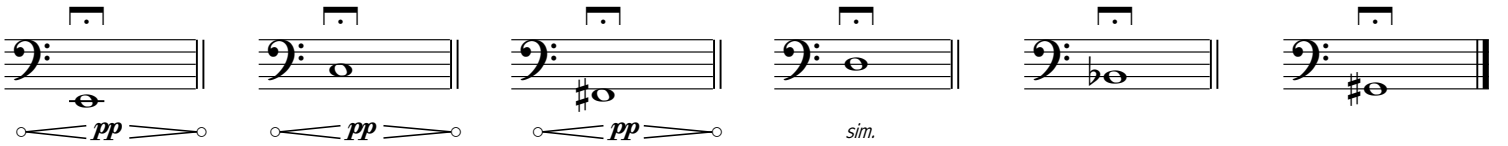
High tones - hold for 10-20 seconds each, fade in and out, ad lib. dynamic swells (up to ***mp***)



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



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



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Trumpet in B♭
(or Flugel Horn)

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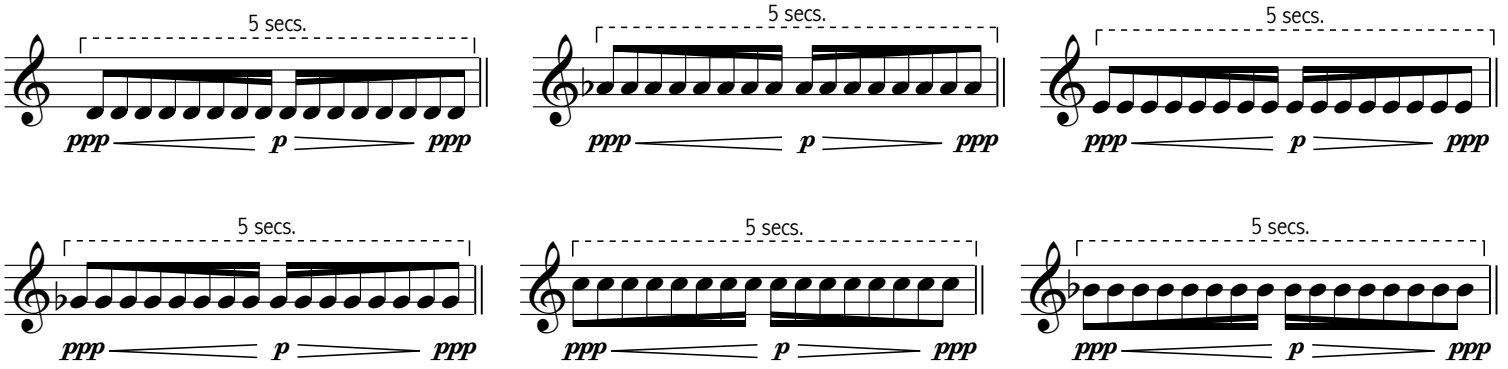
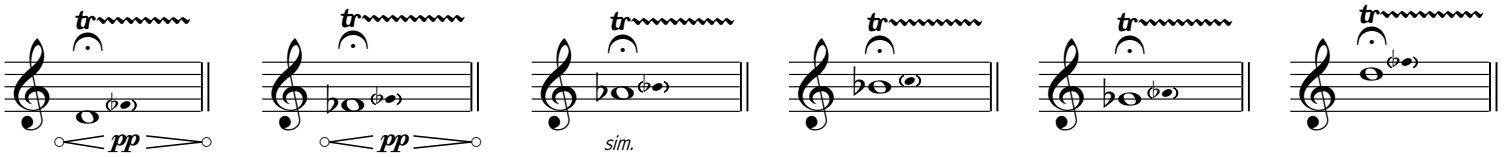
Play any cells, in any order

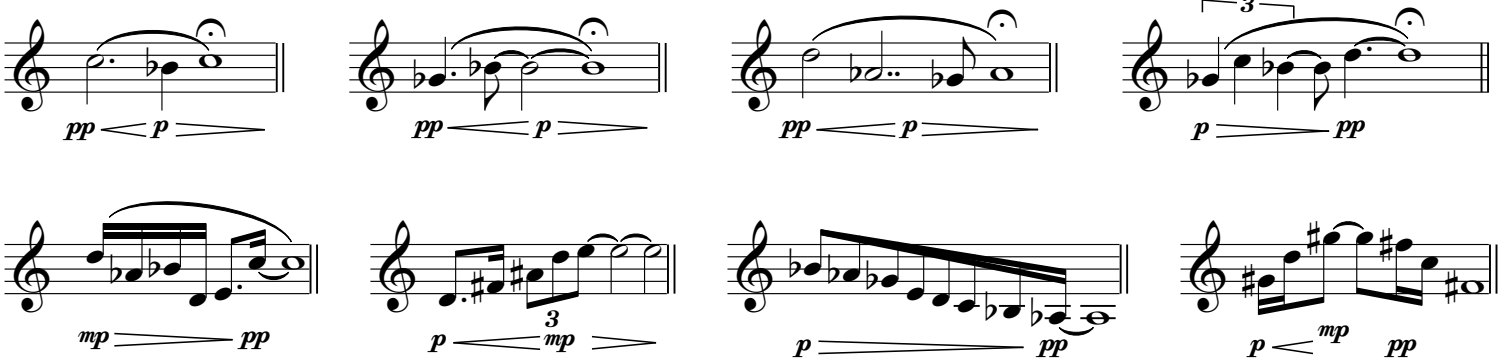
Pulse - very quietly pulse for 5-10 seconds, fading in and out, accel and decel with the dynamic, play in other octaves if desired



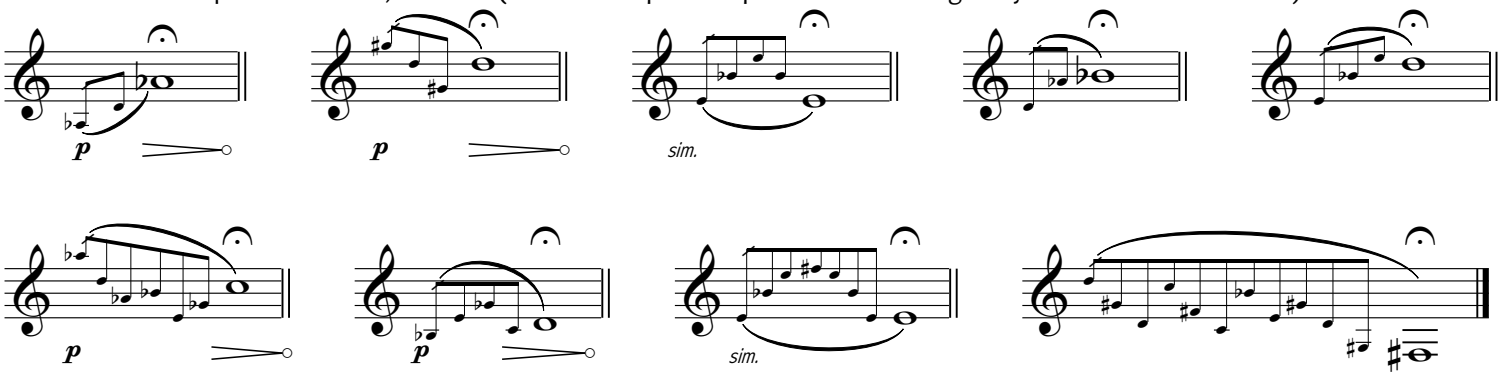
Trills - 10 to 15 seconds, fade in and fade out, vary the speed of the trill with the dynamic, play in other octaves if desired



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 (octave transposition permissable as long as dynamics can be observed)



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Soprano Sax

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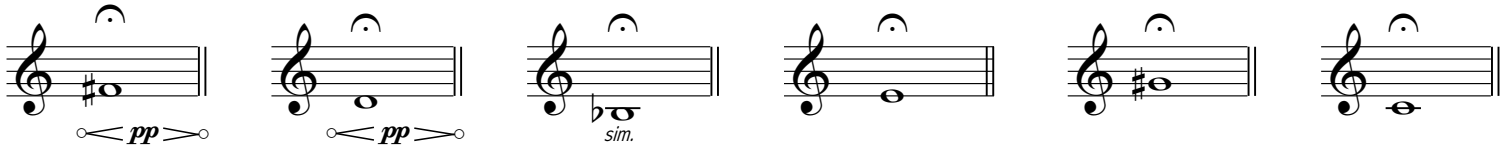
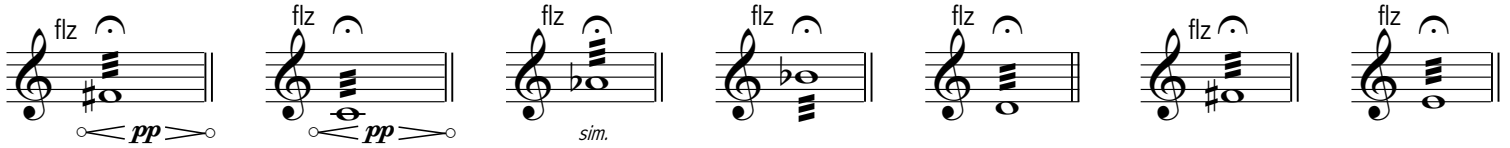
Play any cells, in any order

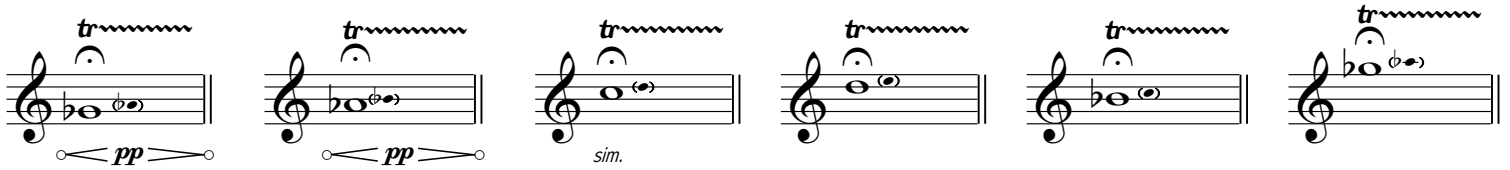
Long Tones - fade in and fade out, ad lib. dynamic swells (up to ***mp***), play for 10-15 seconds, play in other octaves if desired



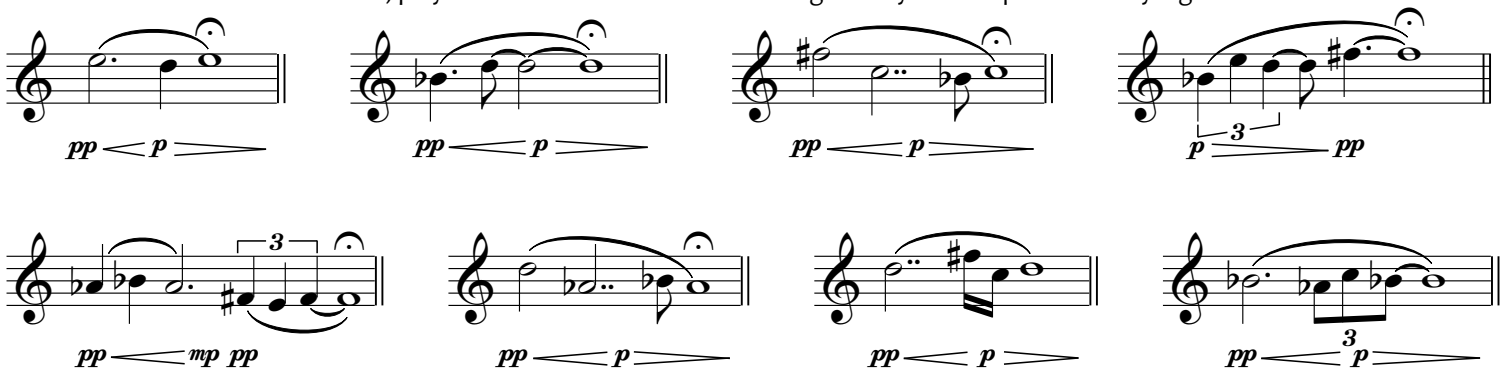
Flutter Tongue - very quietly and subtle, hold for 10-15 seconds, fading in and out



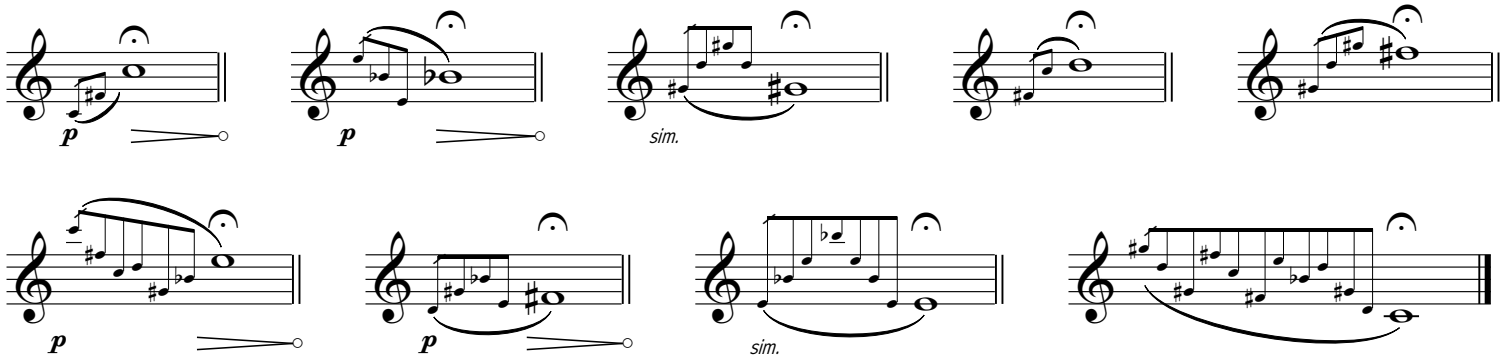
Trills - 10 to 15 seconds, fade in and fade out, vary the speed of the trill with the dynamic, play in other octaves if desired



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



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Harp

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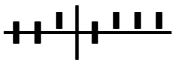
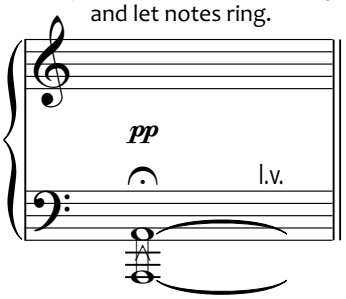
Play any cells in any order; let all notes ring throughout; initial pedal positions: D♮ C♮ B♭ | E♮ F♭ G♭ A♭

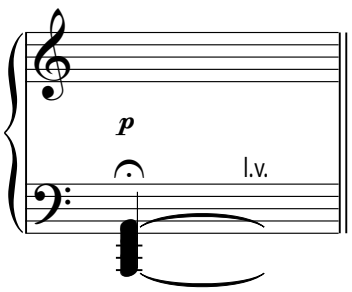


Effects - very softly, and infrequently

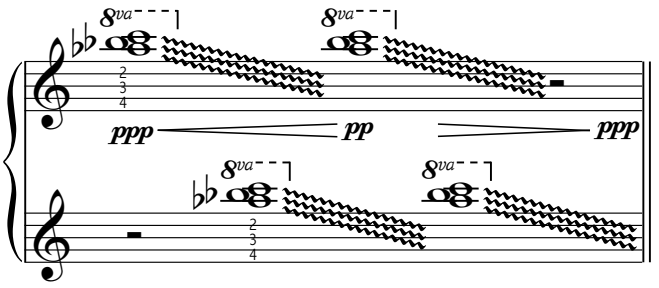
Whistle Sound: Slide left hand lengthwise on the wire strings very slowly, release at the top and let notes ring.



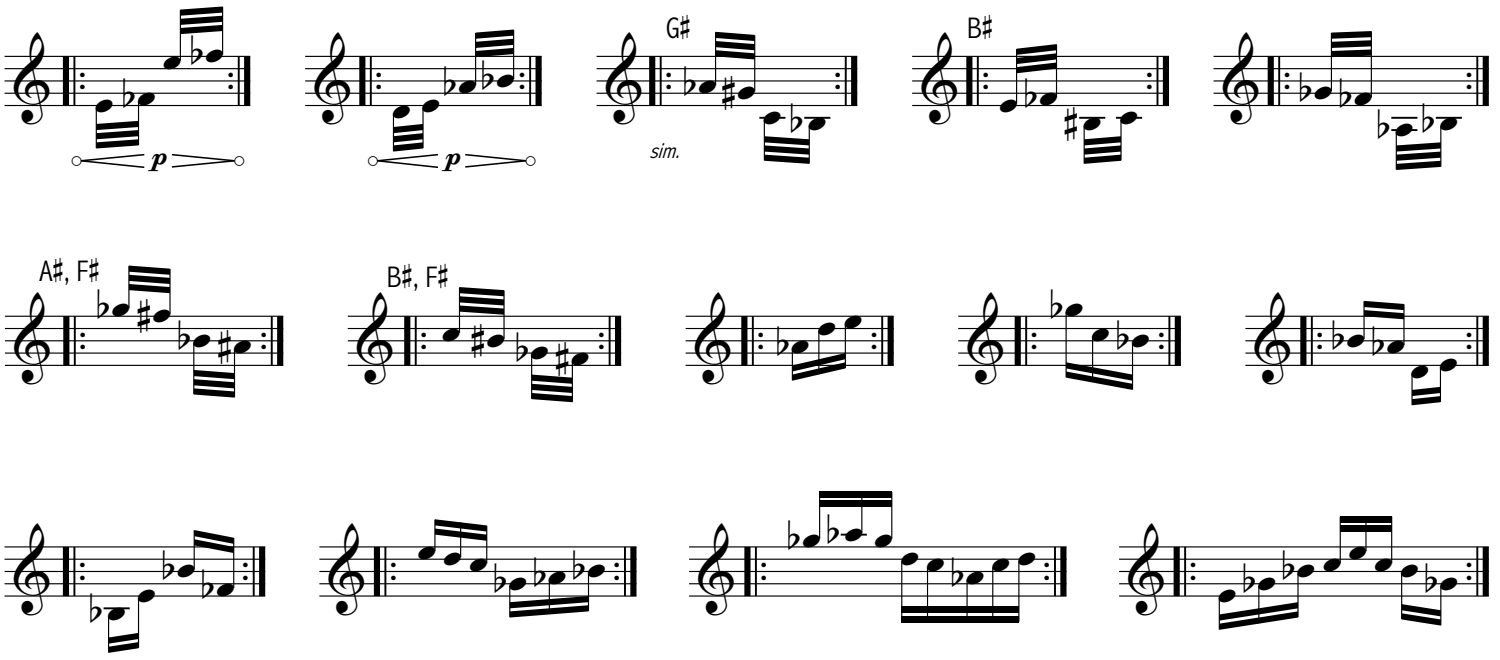
Gong Sound: Hit, with an open palm, a large cluster of low wire strings, like a quiet gong. Let ring.



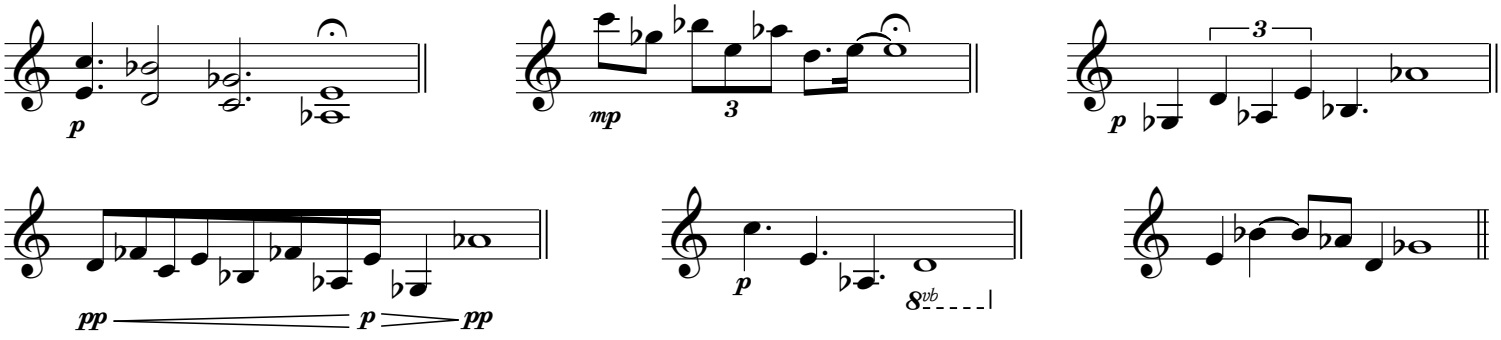
Falling-hail Effect: very slow, very quiet descending glisses with the back of the fingernails. Fade in and out.



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



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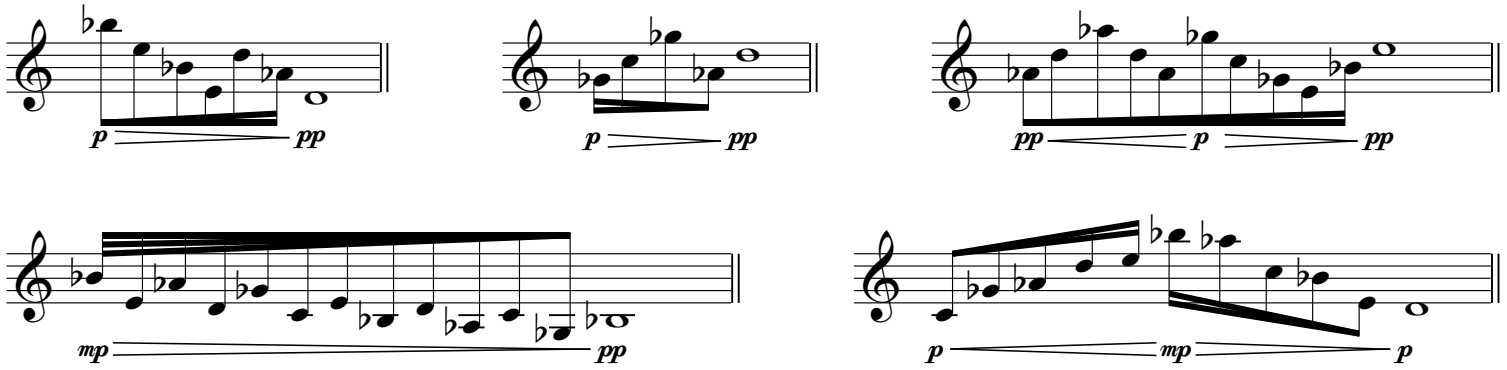
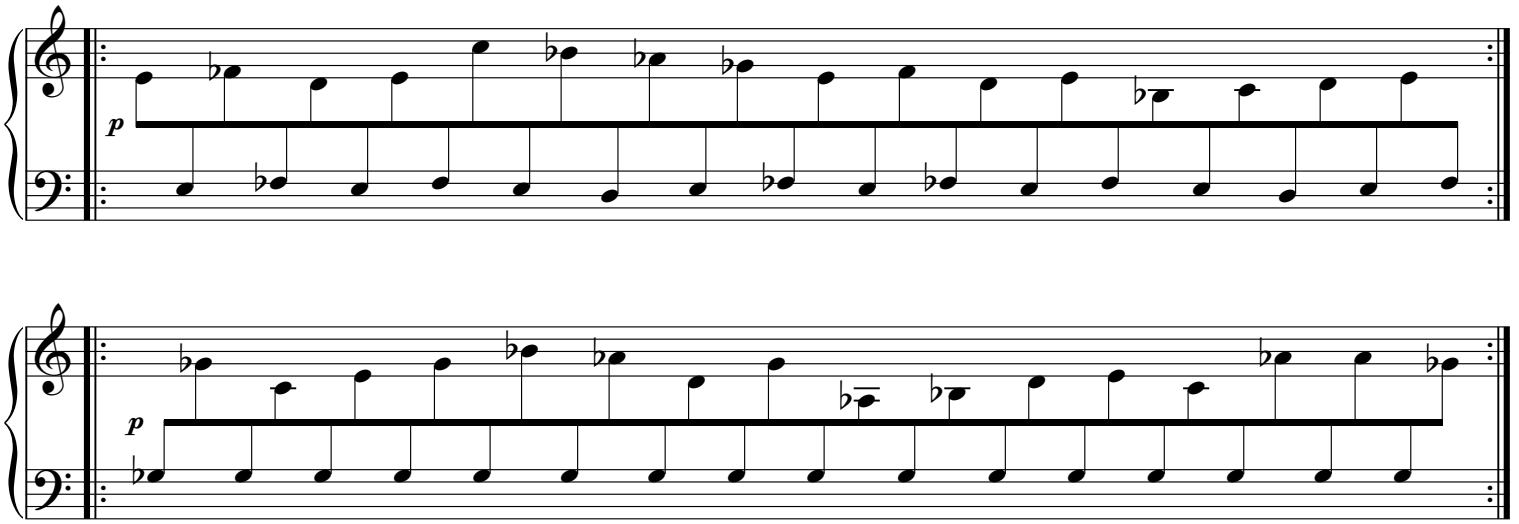
Harp

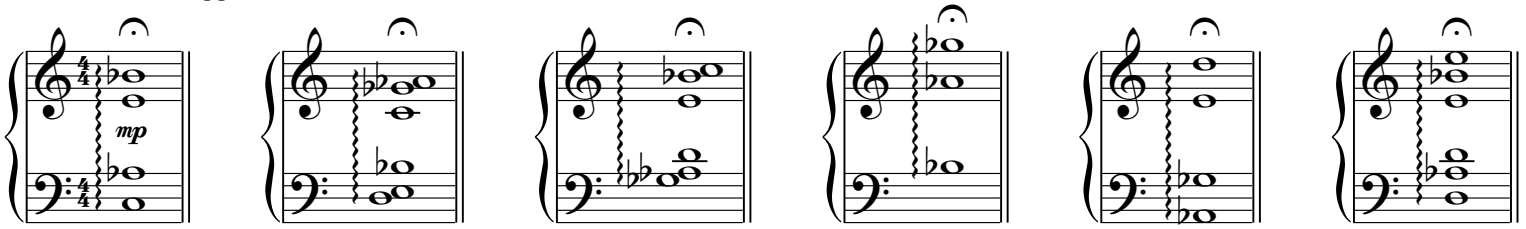
Melodic Cells cont. - (♩ = 60-90) - legato, do not repeat, molto espressivo, play in any octave



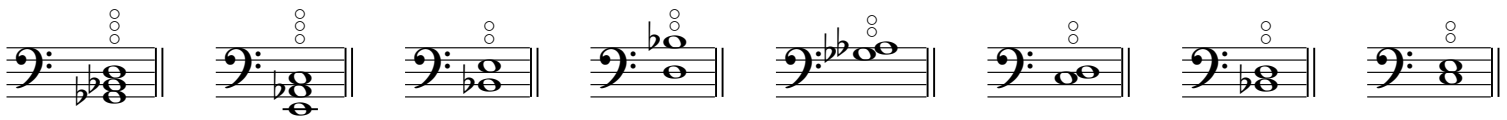
Ostinati - (♩ = 80-120) - very rubato, accel and decel freely, repeat as long as desired, change octaves with either hand freely



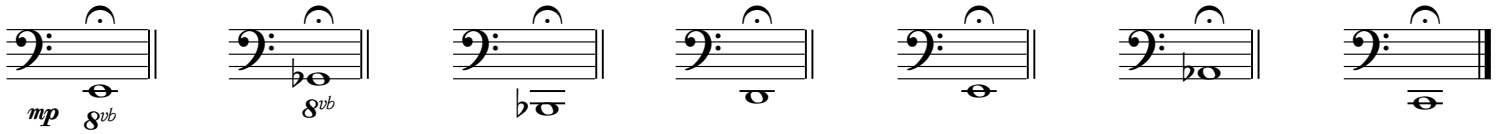
Chords - arpeggiate up or down, play in any octave



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



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



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Piano

Lagrange Point

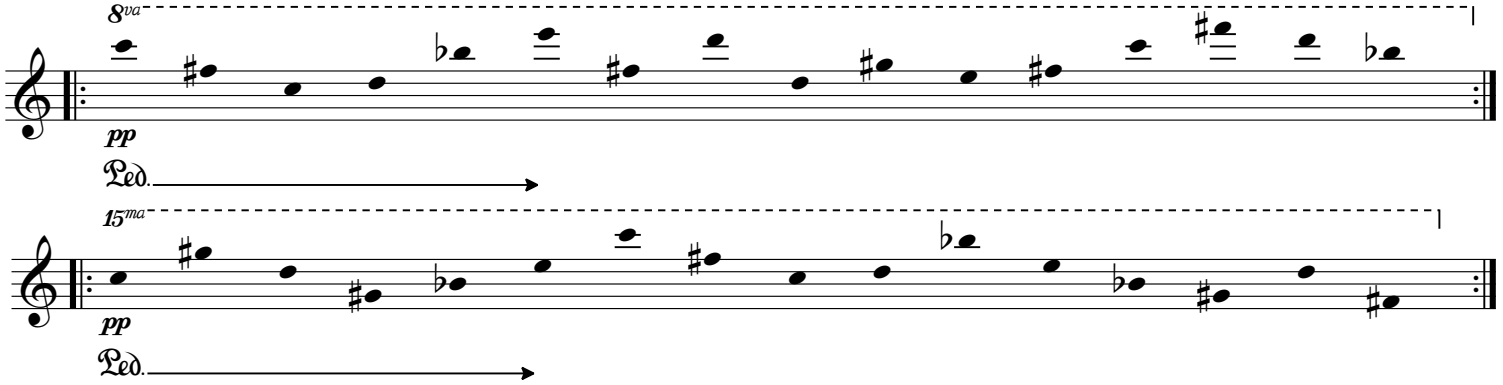
for spatialized chamber ensemble

Dedicated to Neil deGrasse Tyson

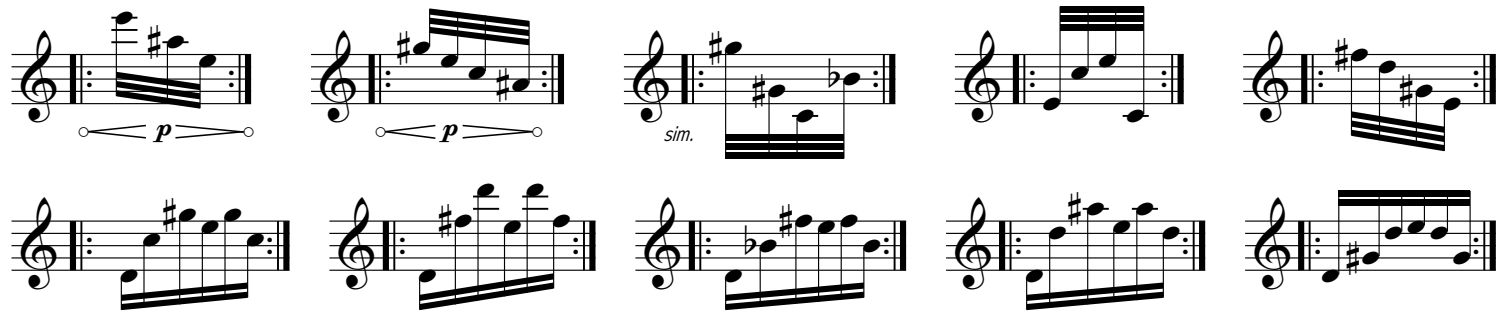
Jordan Nobles

Play any cells in any order, sustain pedal down throughout

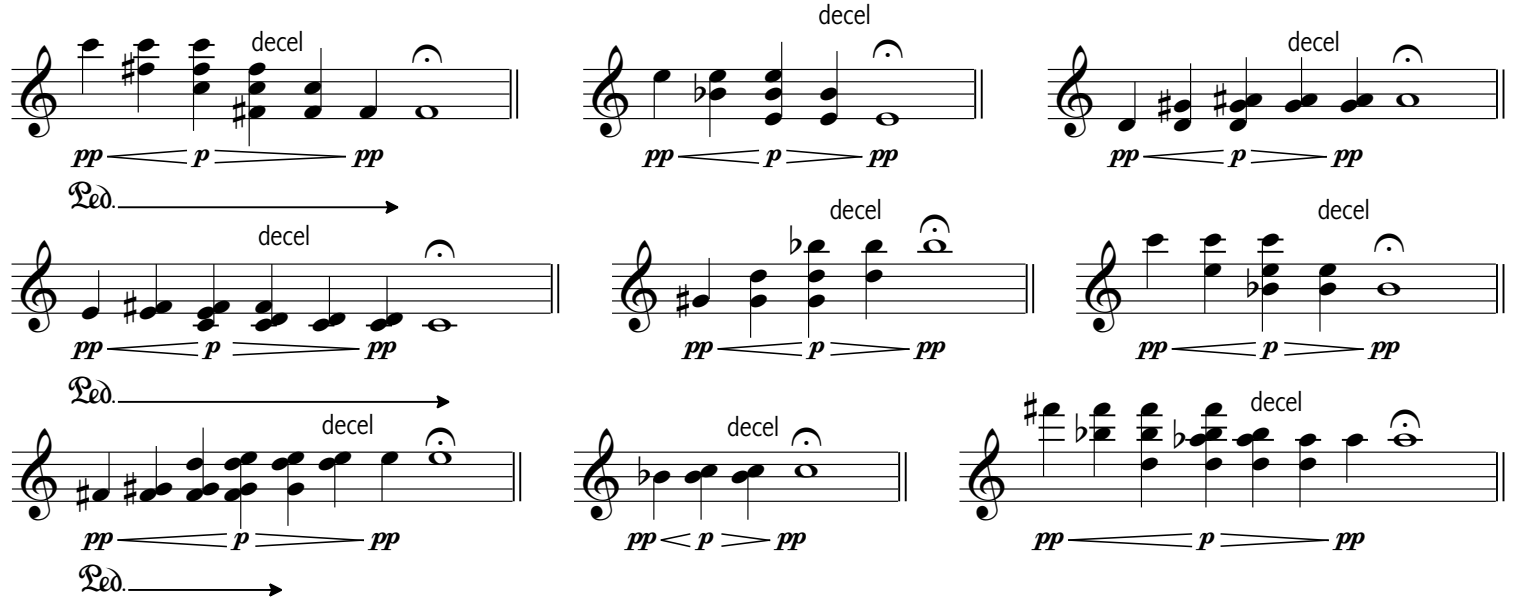
High Tones - slowly, quietly and sparsely, very rubato, avoid a regular rhythm or pulse



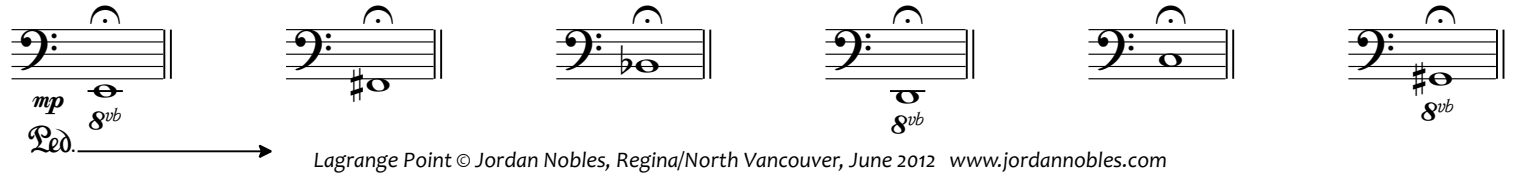
Fast Repeated Cells - repeat for 10 -15 sec., fade in and out, very quiet and legato, accel. and decel with volume



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



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



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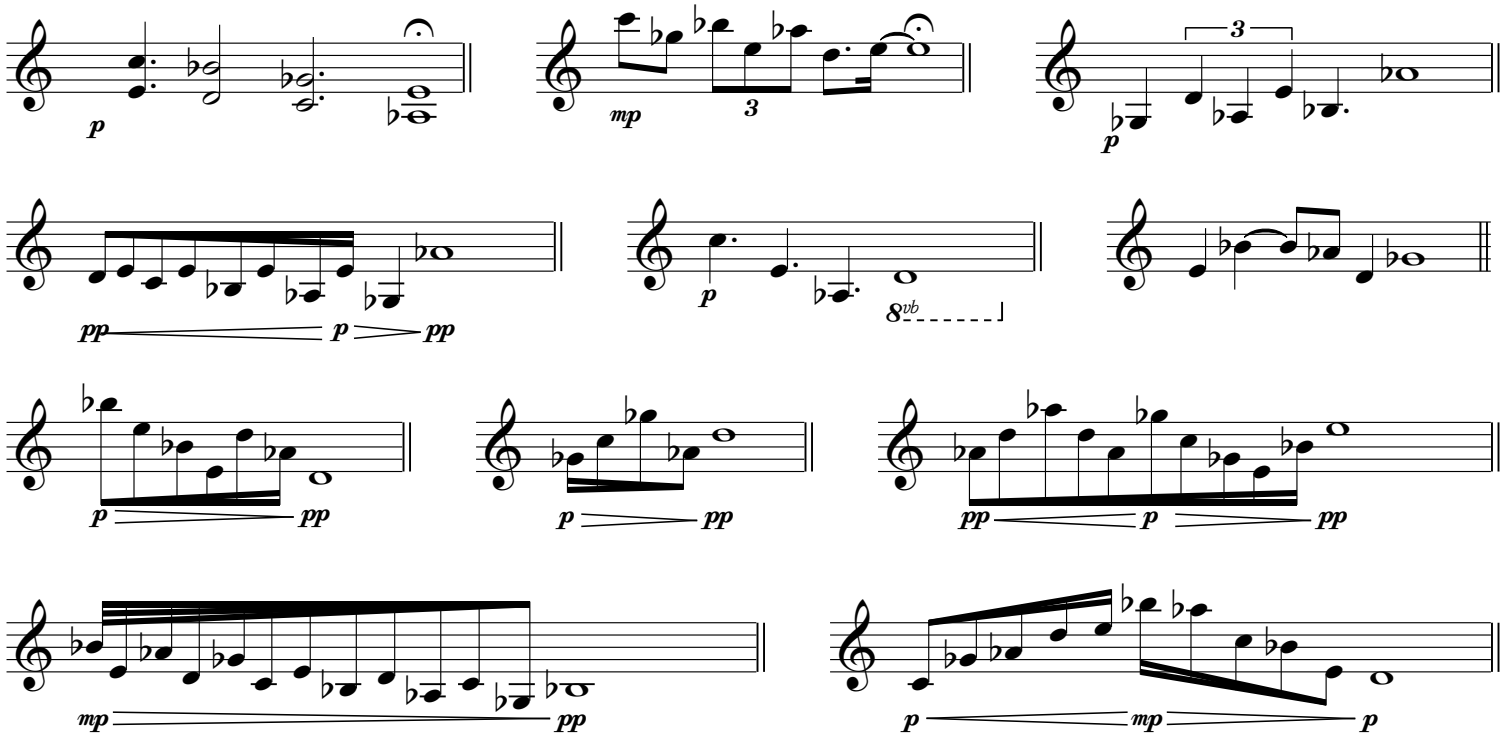
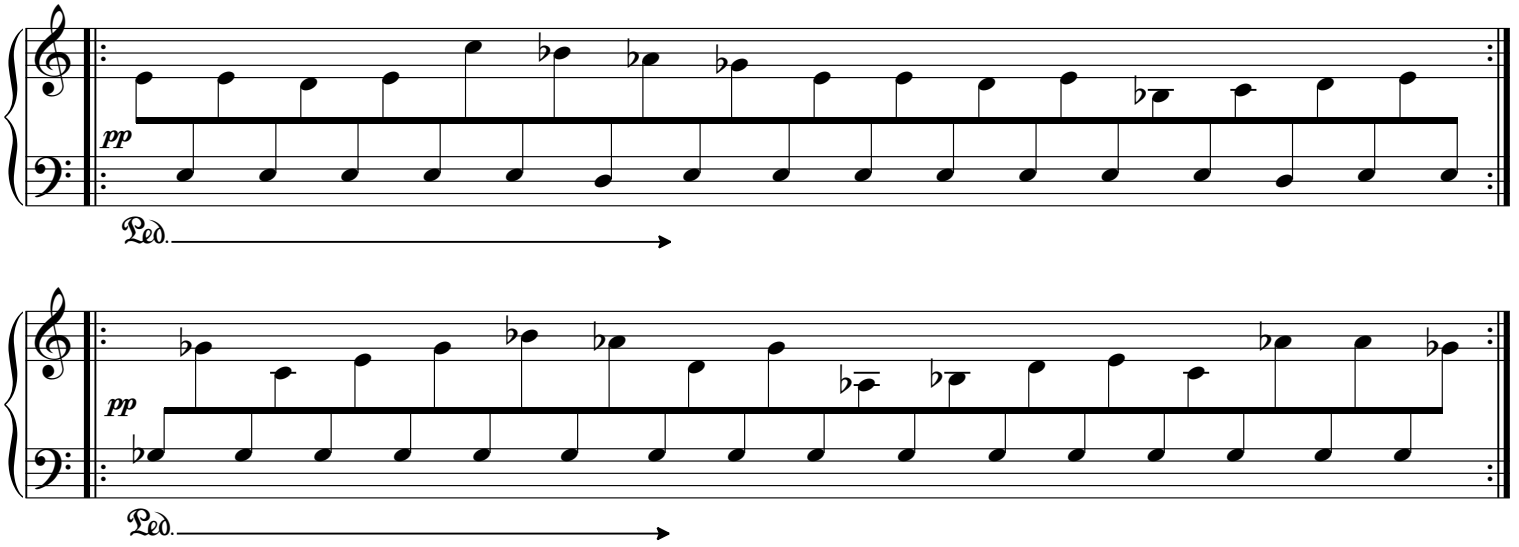
Piano

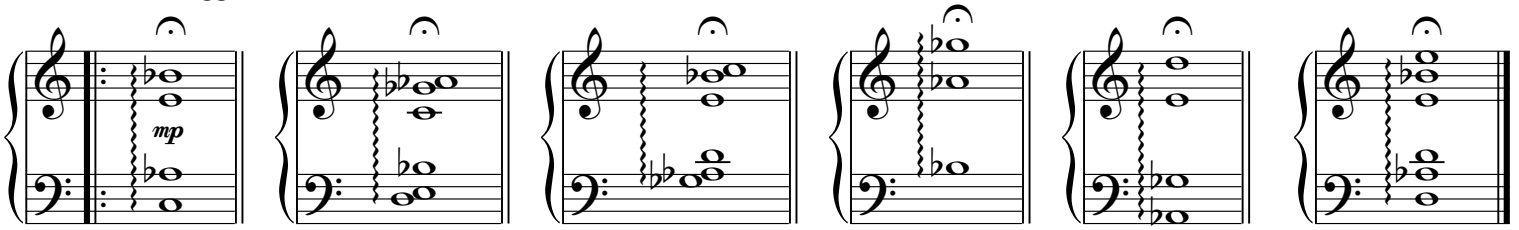
Melodic Cells - (♩ = 60-90) - legato, do not repeat, molto espressivo, play in any octave



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



Chords - arpeggiate up or down, play in any octave



Voice

Lagrange Point

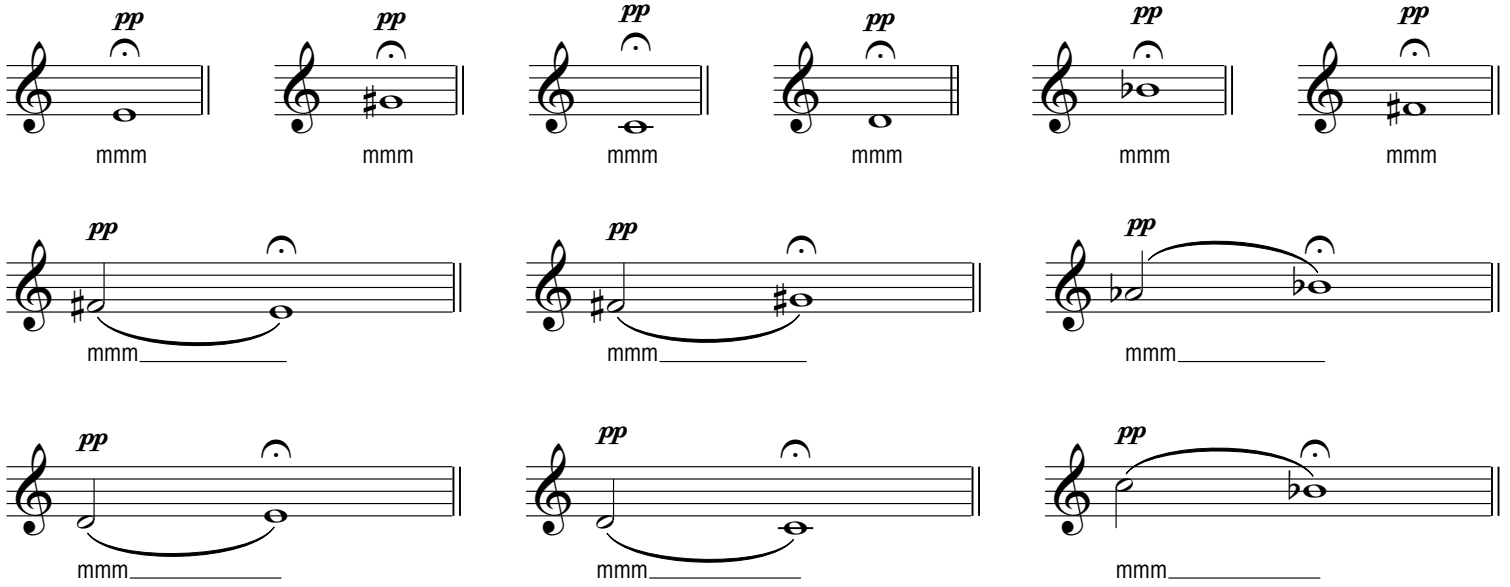
for spatialized chamber ensemble

Dedicated to Neil deGrasse Tyson

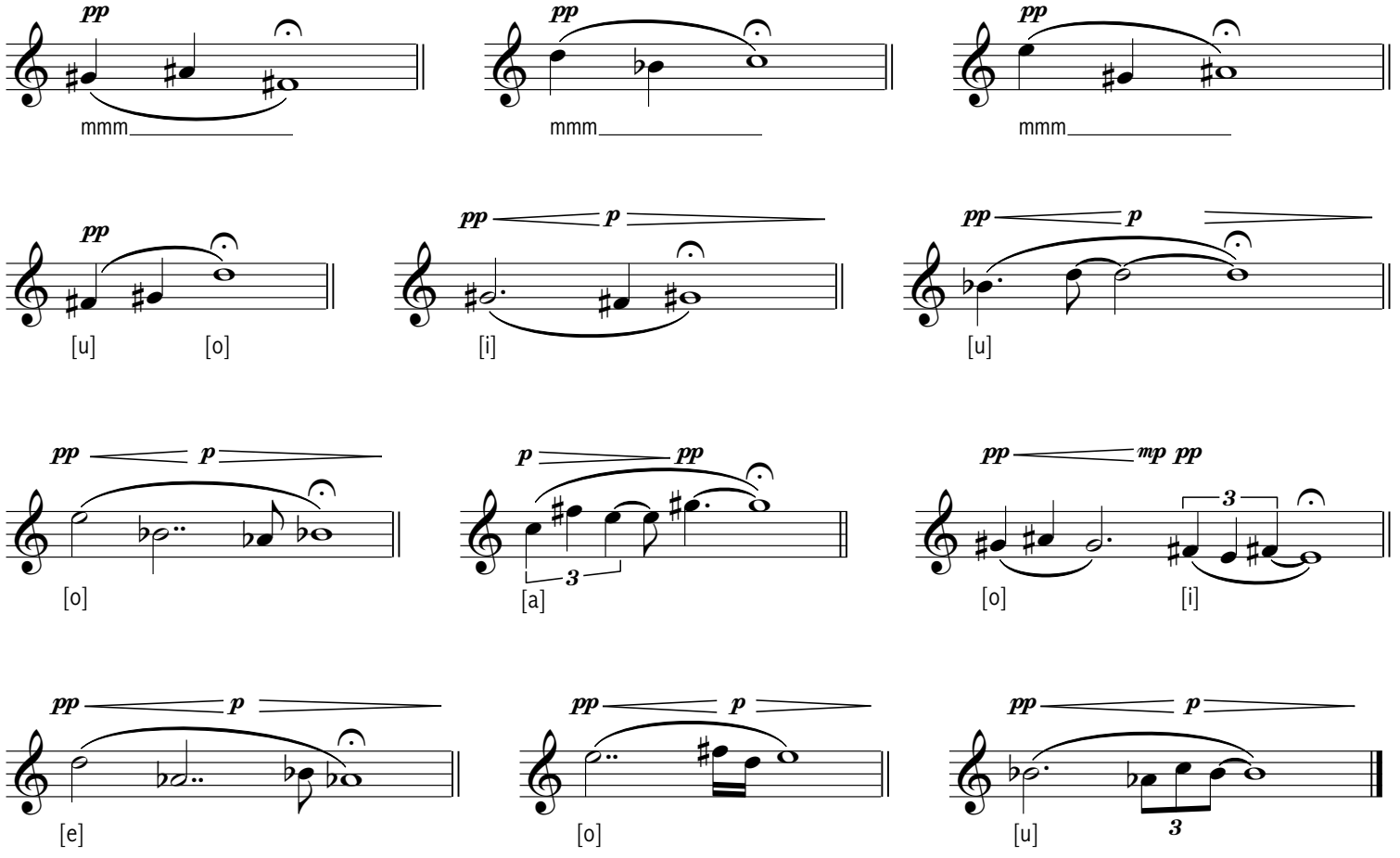
Jordan Nobles

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)



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



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Guitar

Lagrange Point

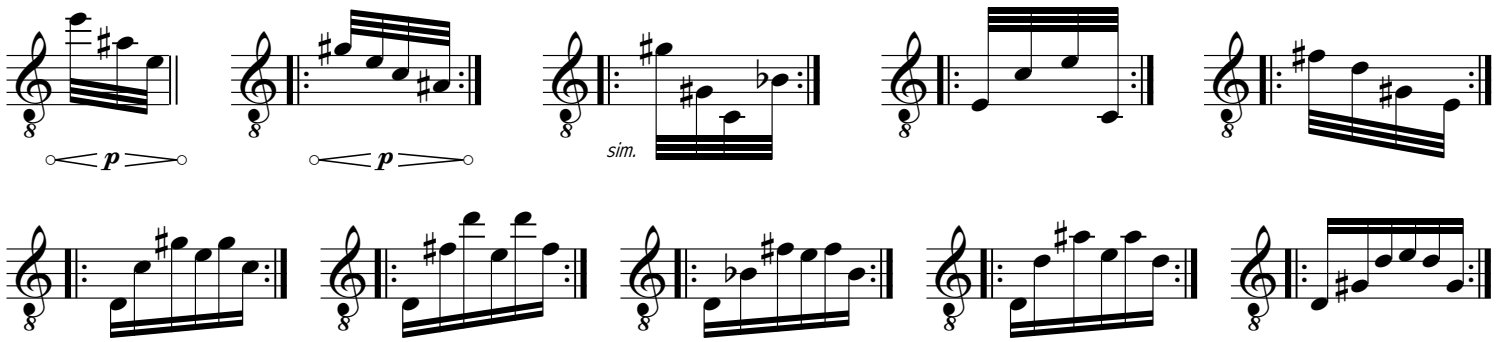
for spatialized chamber ensemble

Dedicated to Neil deGrasse Tyson

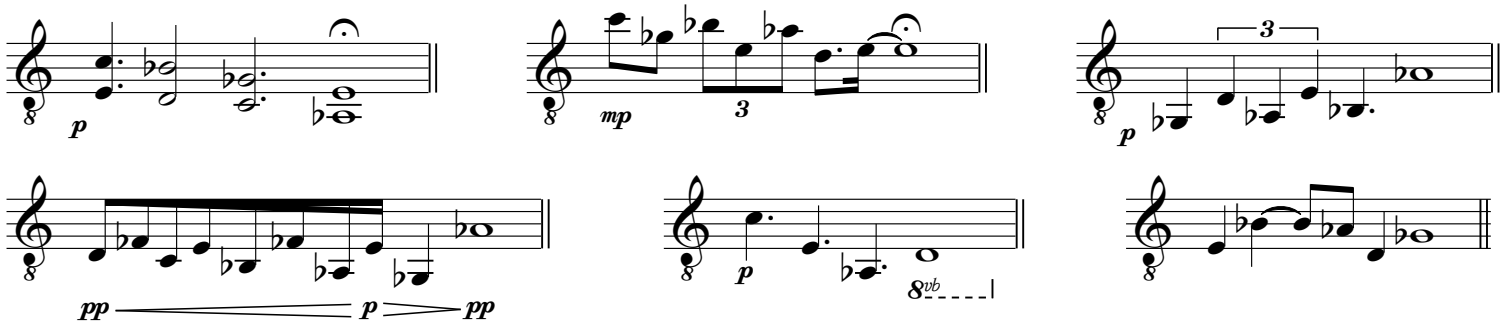
Jordan Nobles

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

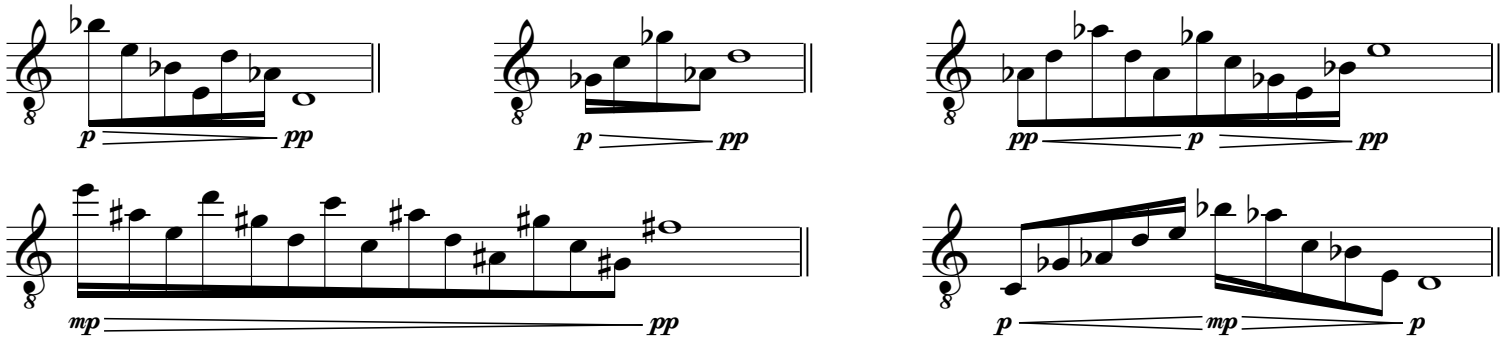
Fast Repeated Cells - repeat for 10 -15 sec., fade in and out, very quiet and legato, accel. and decel with volume



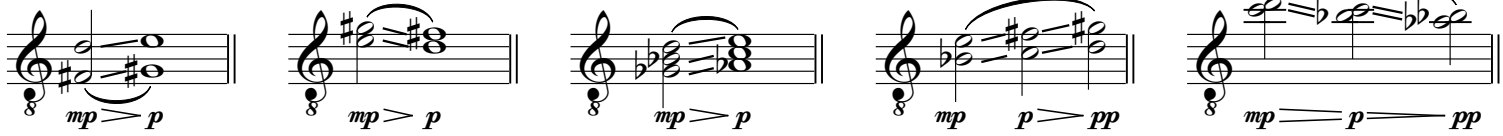
Melodic Cells - (♩ = 60-90) - legato, do not repeat, molto espressivo, play in any octave



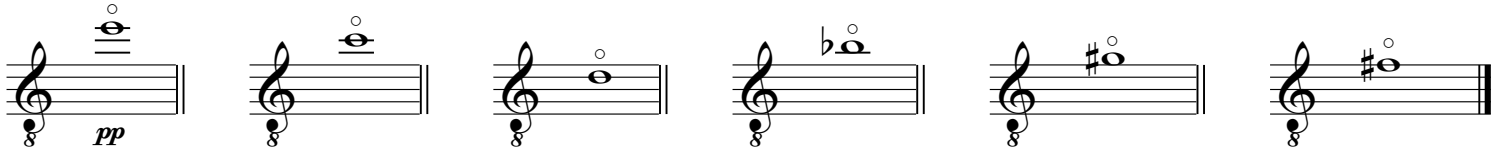
Melodic Cells cont. - (♩ = 60-90) - legato, do not repeat, molto espressivo, play in any octave



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



Natural or Artifical Harmonics - let ring



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Vibraphone

Lagrange Point

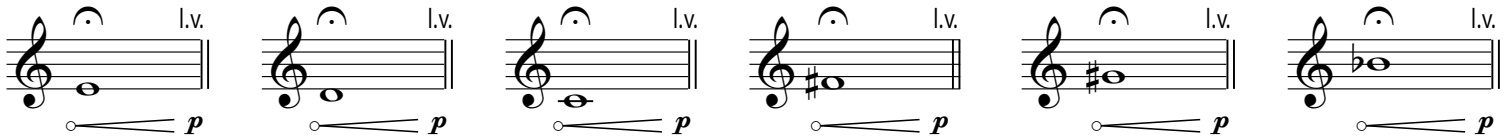
for spatialized chamber ensemble

Dedicated to Neil deGrasse Tyson

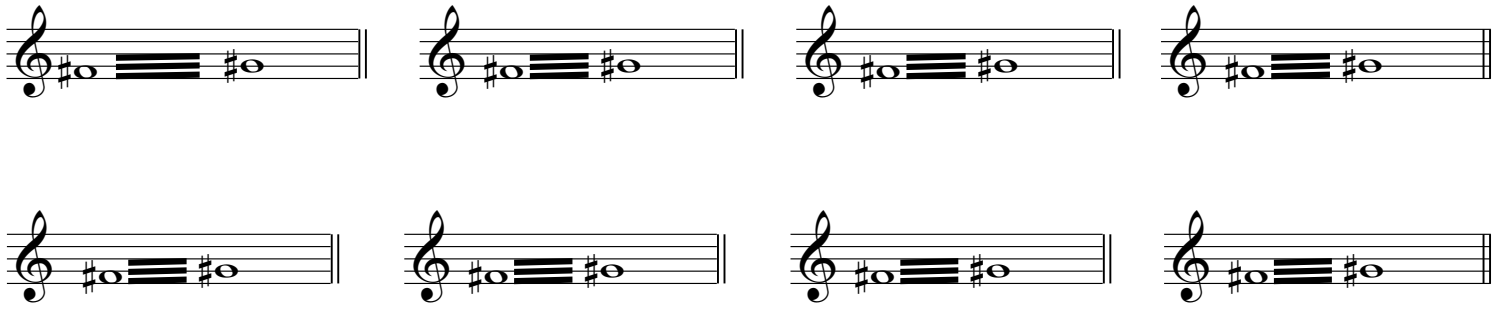
Jordan Nobles

Play any cells, in any order

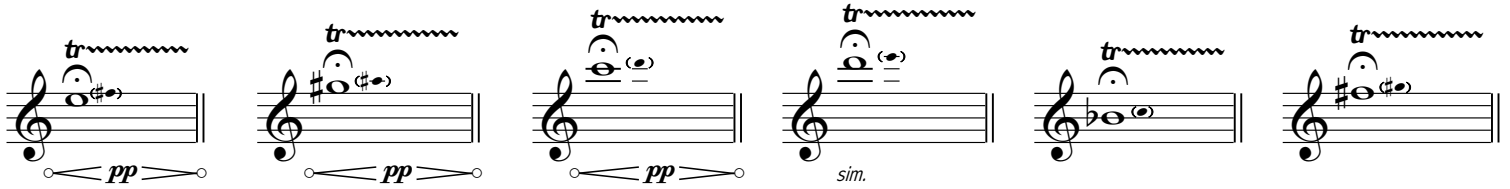
Bowed Notes - bow with bass or cello bow, any of the following notes (or combinations), play in any octave, let ring



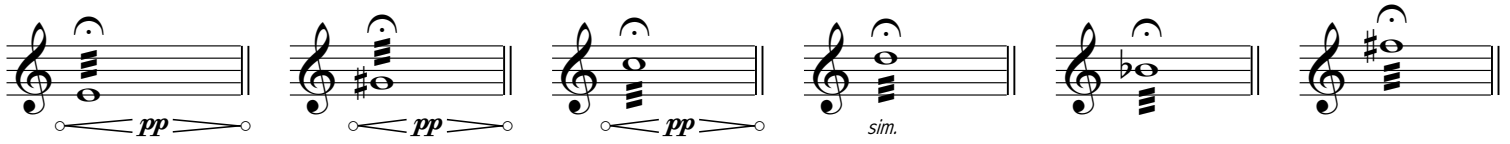
Tremolos - hold for 10-20 seconds each, fade in and out, change octaves if desired



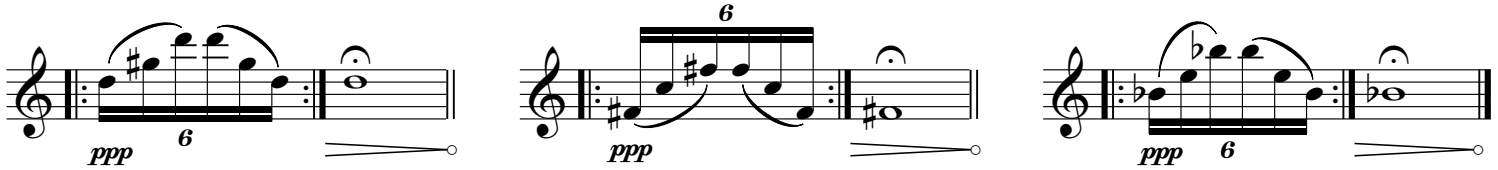
Trills - 10 to 15 seconds, fast trill, fade in and fade out, extreme sul ponticello (play in other octaves if desired)



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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Marimba

Lagrange Point

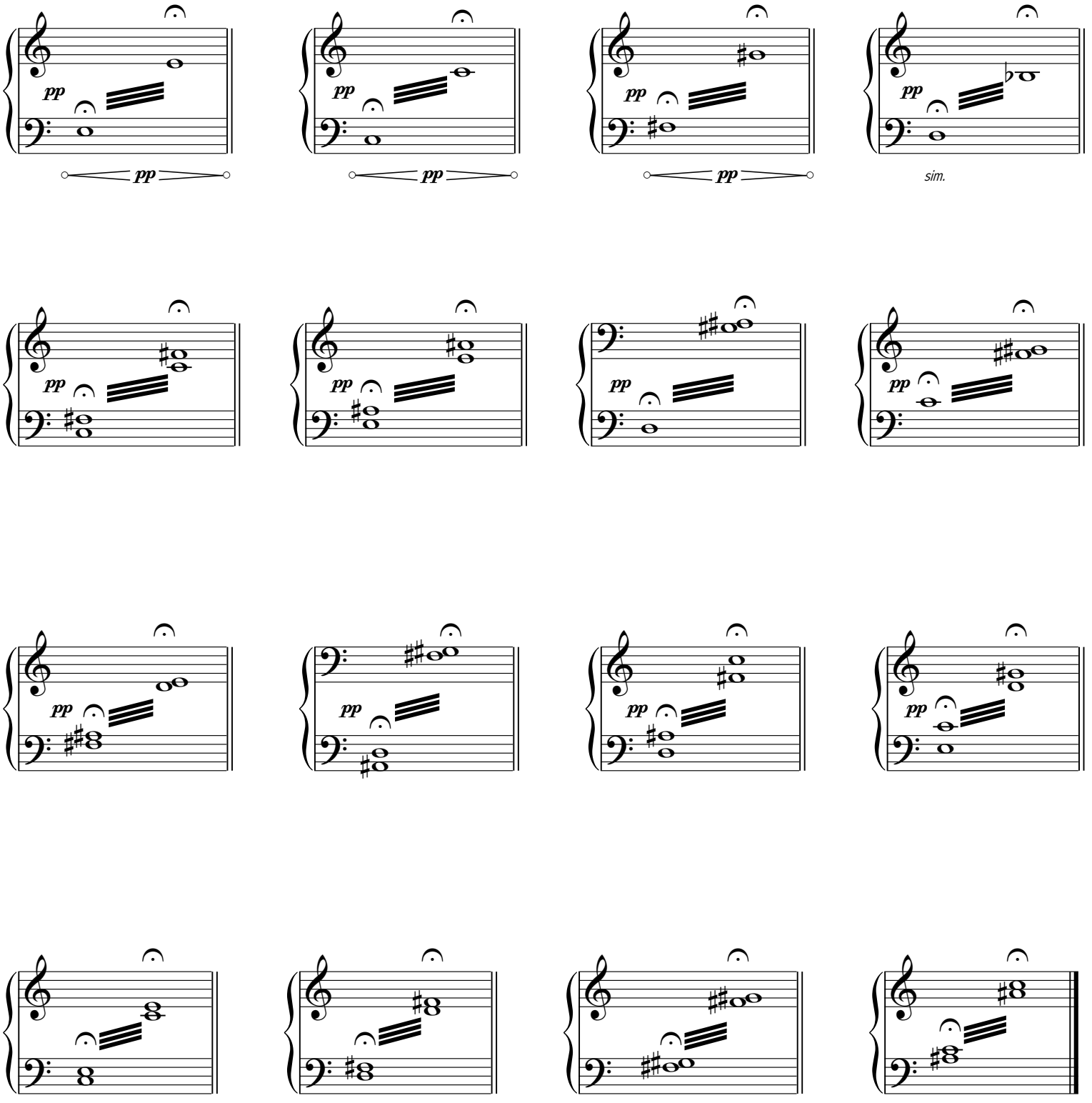
for spatialized chamber ensemble

Dedicated to Neil deGrasse Tyson

Jordan Nobles

Play any cells in any order

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



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Glockenspiel
and/or Crotales

Lagrange Point

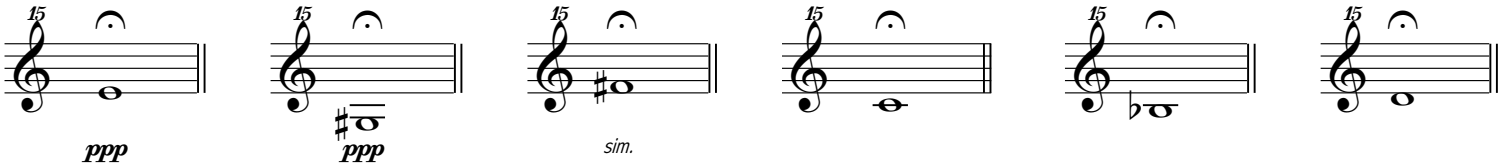
for spatialized chamber ensemble

Dedicated to Neil deGrasse Tyson

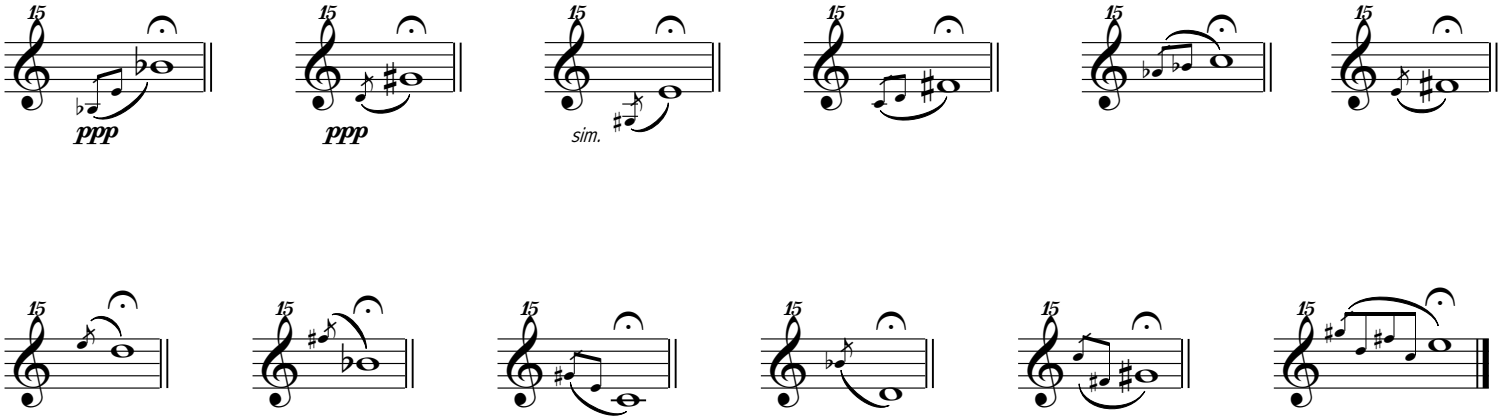
Jordan Nobles

Play any cells, in any order

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

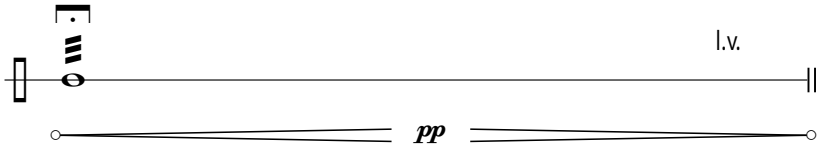


Grace Notes - play very quietly with plastic mallets, very sparsely and with no regular pulse



Unpitched Percussion

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



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

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Violin

Lagrange Point

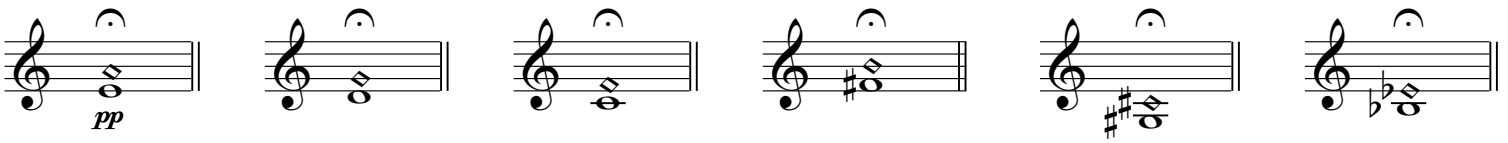
for spatialized chamber ensemble

Dedicated to Neil deGrasse Tyson

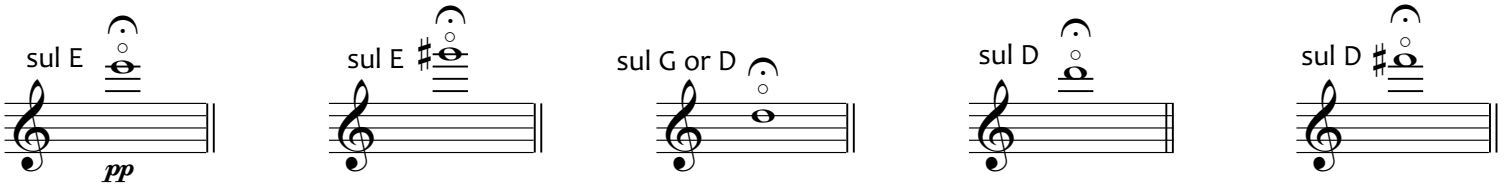
Jordan Nobles

Play any cells, in any order

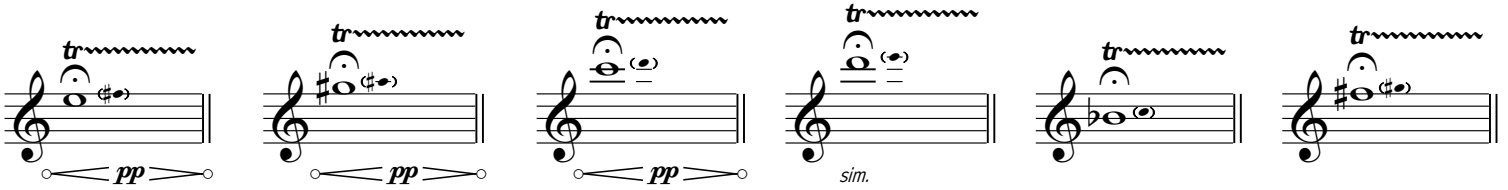
Artificial Harmonics - hold for 10-20 seconds each



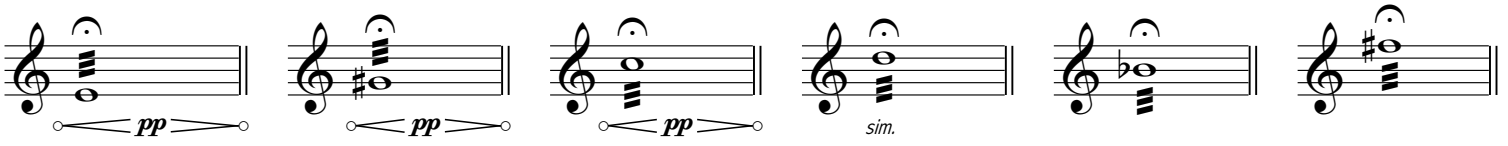
Natural Harmonics - hold for 10-20 seconds each



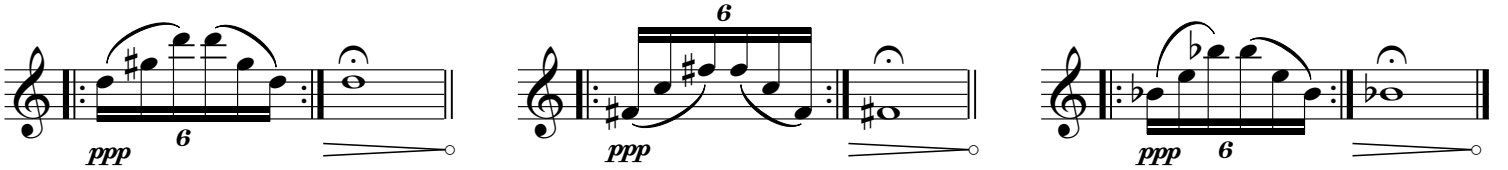
Trills - 10 to 15 seconds, fast trill, fade in and fade out, extreme sul ponticello (play in other octaves if desired)



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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Viola

Lagrange Point

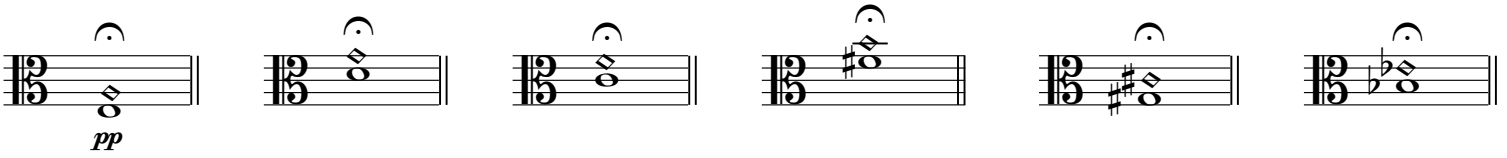
for spatialized chamber ensemble

Dedicated to Neil deGrasse Tyson

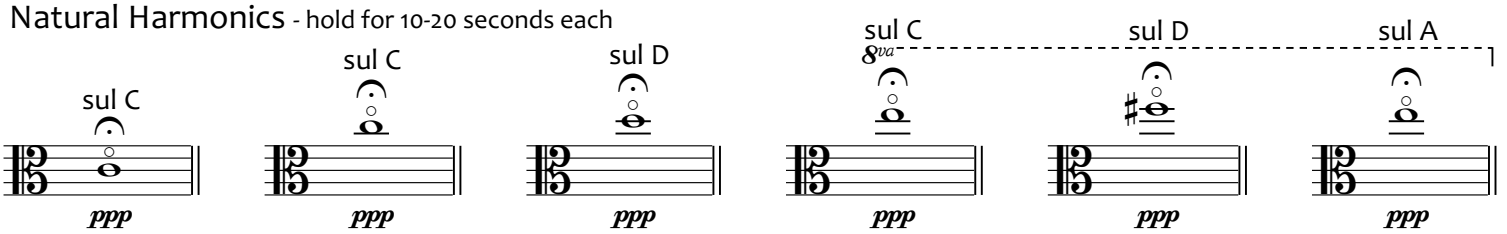
Jordan Nobles

Play any cells, in any order

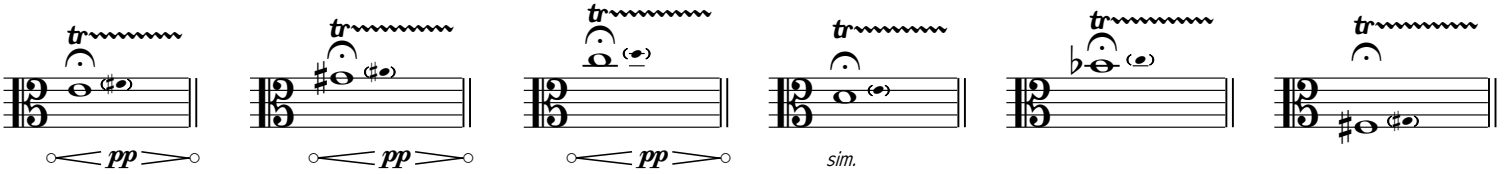
Artificial Harmonics - hold for 10-20 seconds each



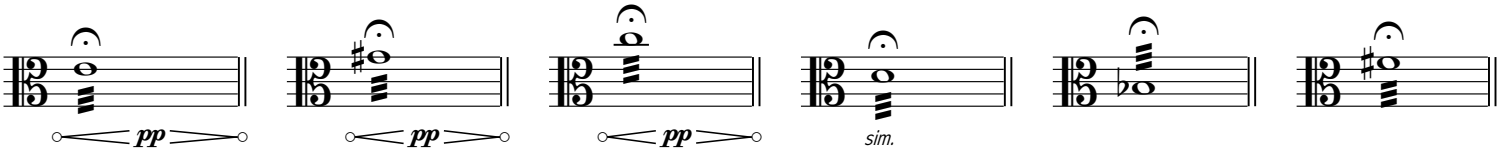
Natural Harmonics - hold for 10-20 seconds each



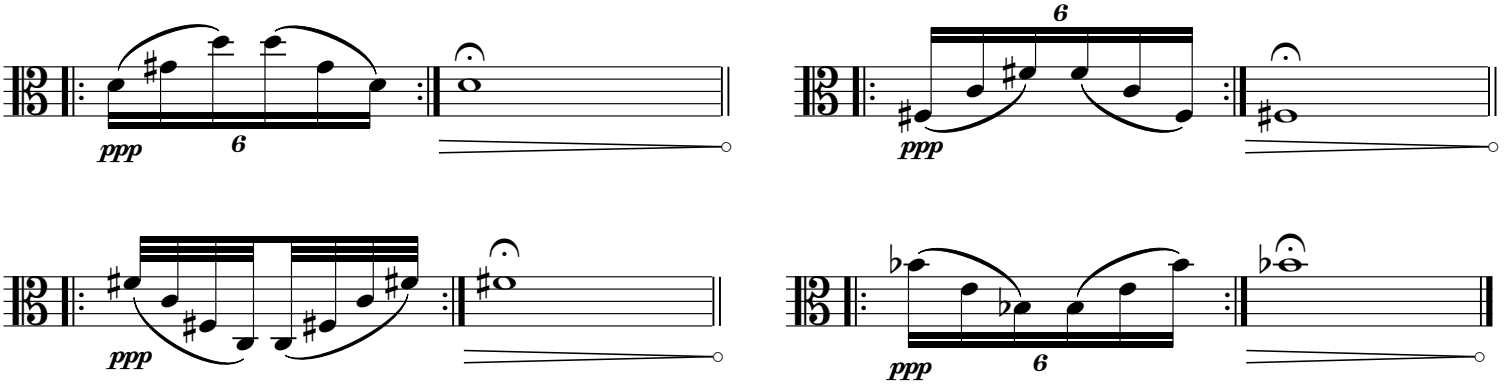
Trills - 10 to 15 seconds, fast trill, fade in and fade out, extreme sul ponticello (play in other octaves if desired)



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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Violoncello

Lagrange Point

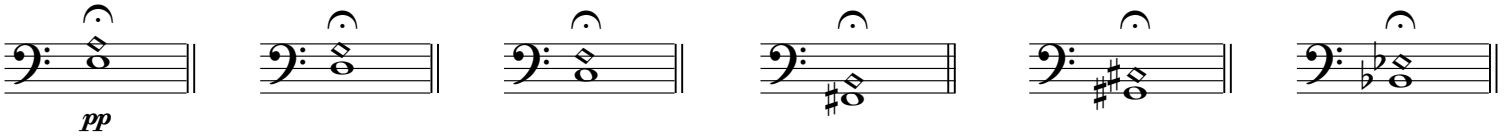
for spatialized chamber ensemble

Dedicated to Neil deGrasse Tyson

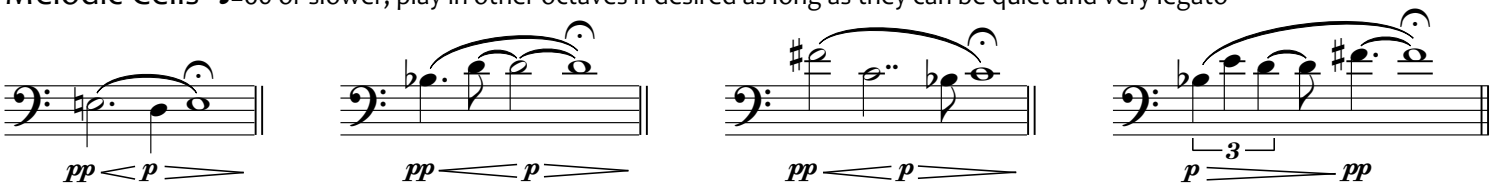
Jordan Nobles

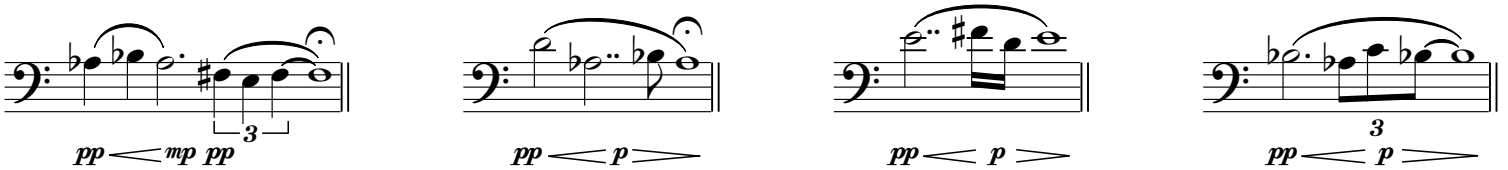
Play any cells, in any order

Artificial Harmonics - hold for 10 or more seconds each

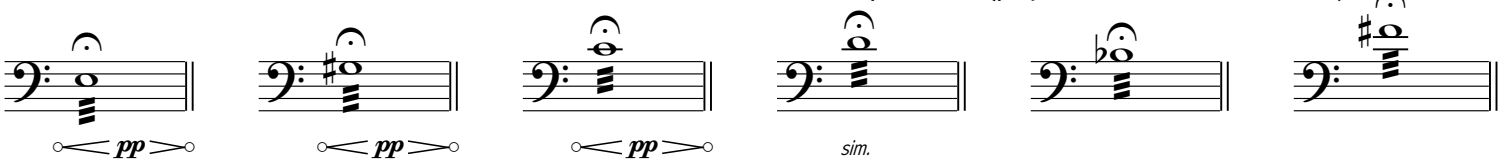


Melodic Cells - ♩=60 or slower, play in other octaves if desired as long as they can be quiet and very legato

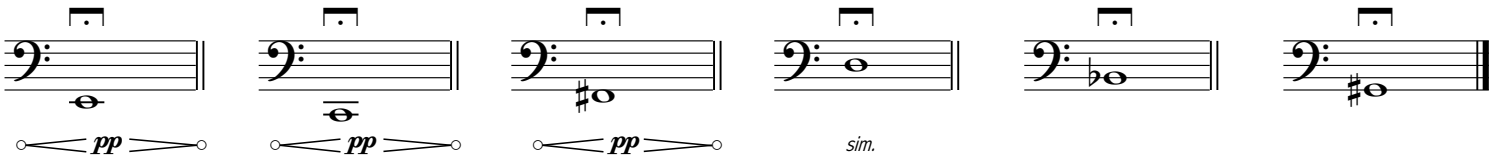




Tremolo - 10 to 15 seconds, fast tremolo, fade in and fade out, extreme sul ponticello (play in other octaves if desired)



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



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Double Bass

Lagrange Point

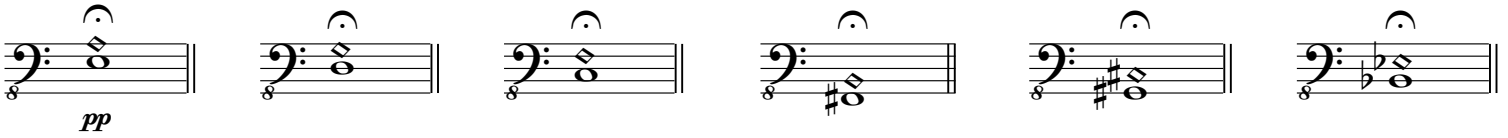
for spatialized chamber ensemble

Dedicated to Neil deGrasse Tyson

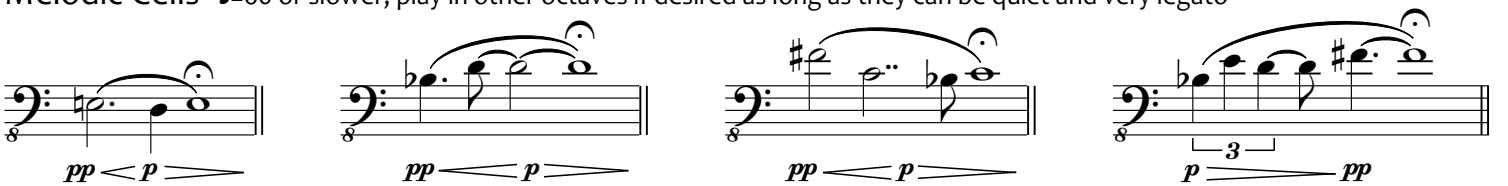
Jordan Nobles

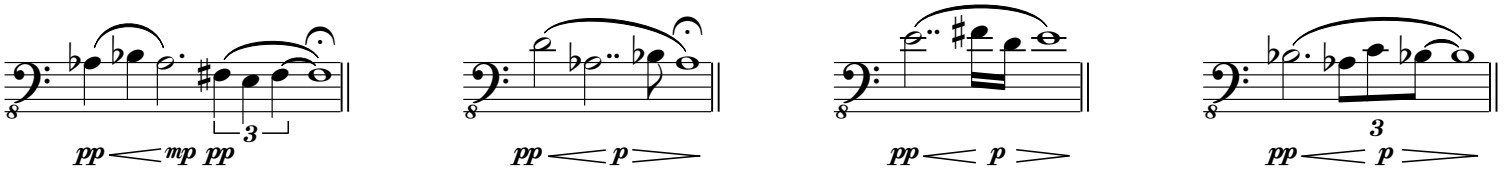
Play any cells, in any order

Artificial Harmonics - hold for 10 or more seconds each

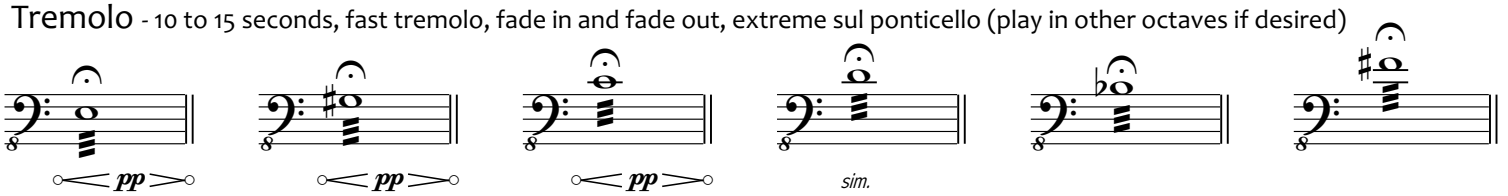


Melodic Cells - ♩=60 or slower, play in other octaves if desired as long as they can be quiet and very legato

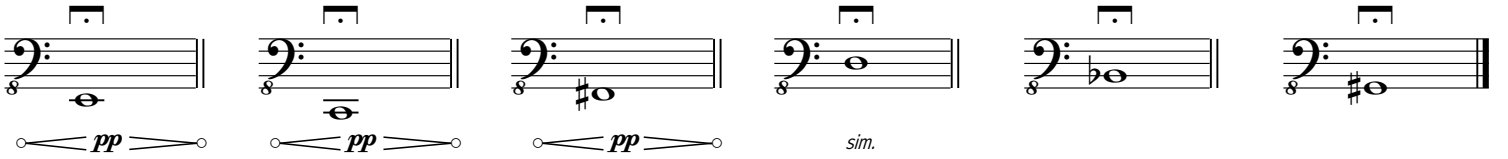




Tremolo - 10 to 15 seconds, fast tremolo, fade in and fade out, extreme sul ponticello (play in other octaves if desired)



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



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