Composition Portfolio

by

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A portfolio submitted in partial fulfillment of the requirements for the degree of

Master of Music

in

Composition

Department of Music

University of Alberta

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a note on page numbers:

Scores have pairs of page numbers, one for the page of the score, and one for the page within the whole portfolio. The page number of the score is in lowercase Roman numerals, and the page number for the portfolio is in typical Arabic numerals, as per the rest of the portfolio. The two page numbers are separated by a forward slash.

For instance, the sixth page of *Pintuck Seams* is numbered **vi / 70**, indicating the sixth page of the score and the 70th page of the portfolio.

For structural reasons, the pieces *Three Stages* and *Daily Routines* do not use page numbers in the score. Portfolio page numbers are still given in the same format as the other pages, but score page numbers are left blank.

For instance, the seventh page of *Three Stages* is numbered **/ 21**, indicating no page number in the score and the 21st page of the portfolio.

Rhythm

All the rhythms in all of the notated pieces are "Euclidean rhythms." For our purposes, a Euclidean rhythm is a rhythm pattern where the note onsets and the rests are as evenly distributed across the entire length of the sequence as possible.

The concept of the "Euclidean rhythm" was coined by McGill University professor of computer science Godfried Toussaint in his paper *The Euclidean Algorithm Generates Traditional Musical Rhythms*. In the paper, Toussaint describes an algorithm used by the nuclear physicist E. Bjorklund for generating binary timing sequences for use in neutron accelerators (Toussaint, 2005, 1-2). Toussaint then describes the "Euclidean algorithm", created by the ancient Greek mathematician Euclid as a method of computing the lowest common denominator between two numbers. Toussaint notes that Bjorklund's algorithm is structurally identical to Euclid's algorithm (ibid, 2-3).

Toussaint explains that musical rhythms are often notated as binary sequences, just like Bjorklund's timing sequences are notated, with a "1" for a note onset and a "0" for a rest. He applies Bjorklund's timing sequence algorithm to the organization of musical rhythms, calling the resulting rhythms "Euclidean rhythms" in reference to the structural equivalency of Bjorklund's and Euclid's algorithms (ibid, 2-3).

One of Toussaint's examples is a set which is eight 16th-notes long, made up of three note onsets and five rests (ibid, 3). In a binary representation, the sounded notes are **[1]** and the rests are **[0]**:

[1][1][1][0][0][0][0][0]

Applying the algorithm, a zero is moved and placed behind each of the ones. We now have three pairs of **[10]** and two remaining **[0]** bits:

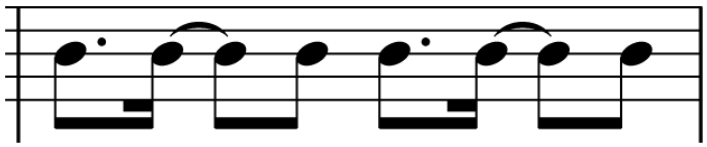
[10][10][10][0][0]

The two remaining zeroes are moved and placed behind each of the pairs, until we run out of zeroes. Now we have two groups of **[100]** and a remainder of **[10]**.

[100][100][10]

At this point, any further distributions of the **[10]** remainder are rotationally equivalent, so there is no need to continue distributing the remainder. The algorithm ends.

Toussaint notes that the **[100][100][10]** binary rhythm that has been produced by the algorithm matches the onset pattern of the Cuban *tresillo* rhythm (ibid, 3). Toussaint represents rhythms using either binary numbers or a circular notation of his own devising, but I have written the rhythm here in standard notation:



Toussaint catalogues the rhythms using the notation E(*k,n*), where *k* is the number of ones/note onsets and *n* is the total length of the sequence (ibid, 3). The number of rests is then equal to the difference between *k* and *n*.

In the rest of the paper, Toussaint describes a further twenty-one other Euclidean rhythms, each of which match rhythms used in folk music/world music, jazz, and western art music. For example, the Euclidean rhythm E(2,5) is a 13th-century Persian rhythm pattern, and when rotated, it is also the metric pattern of works by Tchaikovsky, Gustav Holst, and the jazz pianist Dave Brubeck (ibid, 5).

It is clear that Toussaint's application of the Euclidean algorithm to music is effective at generating "musically useful" rhythm patterns. The most important property of Euclidean rhythms for me is that they have a tendency to de-emphasize the sense of a stable "downbeat" or rhythmic cadence, but still retain the strong feeling of pulse and forward momentum that is associated with a regular meter. Because of these properties, the Euclidean algorithm is especially useful for generating rhythms with odd numbers of onsets and sequence lengths that have an intuitive, gestural feeling.

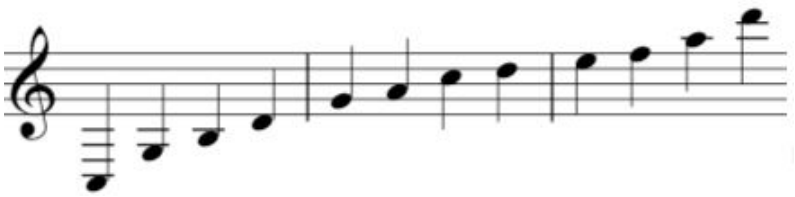
For the collection of pieces in this portfolio, my main method was to generate multiple Euclidean rhythms, rotate them, and then concatenate them into longer sequences. These longer sequences could then themselves be rotated, divided into sections, further recombined, etc. However, when a Euclidean rhythm is transformed or edited in these ways, it usually no longer has an evenly distributed onset pattern structure, and so does not itself qualify anymore as a Euclidean rhythm. I am therefore working with longer, more complex rhythms than are possible to create using only Toussaint's method. While my rhythms are not themselves strictly "Euclidean", I have been careful in my treatment of them so as to ensure that they retain much of the characteristic "human"-ness and metrical ambiguity of the true Euclidean rhythms they are derived from.

For these pieces, I used Max/MSP user 11olsen's publicly available Max object *11euclidean* for generating euclidean rhythm patterns (11olsen, 2014). *11euclidean* uses only standard max objects. Other Maxers have also created javascript versions of the algorithm.

Melody / Harmony / Timbre

In the pieces included in this portfolio, my main technique was to use long sets of specific pitches. For my purposes, each ordered set of pitches was unique and would not be intervallically transformed. This kind of collection of pitches is not really a scale, sort of like a mode, and not quite a pitch set in the conventional terminology. To my thinking, it perhaps most closely resembles a tuning. In this portfolio, I refer to these collections of pitches as "melodic profiles".

Melodic profiles were built either by starting with a mode and assigning pitches from the mode to specific octaves, or else I would build it out by stacking intervals. Here is an example that is typical of the melodic profiles used in *Pintuck Seams* or *Psalmody*:



Usually, each instrument would have a different melodic profile, so that between all the instruments, more complex harmonies could be achieved. Any two instruments would share some pitches and not others, so the melodic profiles of the instruments also determined what harmonic intervals might be possible in the piece. Each instrument had its own harmonic and melodic emphasis, different in different octaves. By overlapping several such melodies, complex harmonies developed.

In writing these pieces, I was thinking about an idea of timbre that arises out of actual harmonies sounding in space. The harmonic and melodic movements are not just pitch transformations but also shifts in the spectra of the overall sound that is produced. Acoustic phenomena such as resonance, phase cancellation, standing waves and nodal points, acoustic beating, combination tones, etc, all contribute significantly to the total timbral quality of a sound, but more importantly, they can also be altered, emphasized or ignored by changes in the basic harmonic and melodic material.

My Dad used to say that his low-quality bootleg Rolling Stones cassettes had more sound on them than just the songs. They all had a unique, conglomerate sound that arose from the peculiar combination of the music, the audience, the room, and factors like air temperature, wind direction, humidity, and the tape recorder. It may have been hard to hear the song itself, but he was listening for the sound of the whole moment. Dad also thought that it was this sound that the band was playing at, not just playing the songs and their instrumental arrangements, but playing with an intention towards the total sound emanation. A lick or a turnaround or phrase performed differently, according to its contribution to the whole sound. This sound that arises out of

everything all at once, interacting with itself, is the timbral effect that my composition practice is trying to reach towards.

Aesthetics

The goal with these pieces was to move towards a kind of ecstatic or sublime event, where there emerges or becomes imminent some phenomena which exceeds the playing, or the listening, or the reverberation, something elevated or extended or felt out from their combination: the writing of music as a kind of reaching out towards or participation in some pre-symbolic essence of nature, of being present in the world. Music as a perception/phenomena through which to be present in the world.

There might appear to be an ironic contradiction in pursuing some kind of "ecstatic ecology of sound" through the apparently artificial, abstracted, mechanical means of computer algorithms. But I think it works because I do not attempt to "algorithmically generate the sublime", which surely would result in failure due to the incoherence of the goal. Instead, I use algorithmic methods in order to call forth something from partly outside of myself, that I could not access entirely on my own with only my own musical awareness. I try to use the algorithms as tools to realize something which comes from some action of the music itself, not just how I think it "should be".

After all, the algorithm is itself a sort of ecology: it represents a network of relationships and affordances, and it produces things I could not find on my own: it is like planting a garden and tending it as it grows.

Three Stages

Three Stages is for solo violin and electronics. It was written in fall term 2017 and performed on April 19, 2018.

The rhythms were created from the product of two interlocking Euclidean rhythms. The first rhythm was generated semi-randomly, with some parameters pre-set. Through a somewhat convoluted process, a second rhythm was also generated semi-randomly, using some of the same parameters of the first rhythm. The pattern of the second rhythm was then overlaid on the collection of onsets in the first rhythm. This complexification procedure created especially long and complex patterns of sparse note onsets spaced by irregular metrical pulse groupings. These types of gestures feel "in time" with each other, but emphasize the feeling of constantly deferred metrical cadence that is a characteristic of Euclidean rhythms..

The melodic and harmonic changes were decided using a Markov probability chain. In a Markov chain, the probability that each possible state will occur is determined by the identity of the previous state. "Higher-order" Markov chains have "memory", so that the probability of the event depends not only on the identity of the previous event, but also on the identities of the events before the previous event.

In *Three Stages*, the "states" of the Markov chain were a set of dyads. The probability that each dyad would occur was determined by the identities of both the previous dyad and the dyad before that one. Because of the second level of memory to the chain, the probabilistic process tended towards some patterns of movements over others. The generating of progressions of dyads therefore had a certain degree of directional intentionality and structural awareness. The actual probabilities themselves were developed by hand, through a process of listening to the results created by a certain set of probabilities, adjusting the probabilities, and then repeating the process.

The character of the progressions was formed by the rules which determined the probabilities; in other words, the character of the progression depends on the rules that govern the relationships between dyads.

It would have been easy to define the dyad relationships according to the rules of tonal harmony, and so produce generally "proper-sounding" tonal progressions. Indeed, this thinking reveals harmonic development as itself a kind of algorithmic process, shaped by the "tonal logic" of the tonal harmony system. For *Three Stages*, I wanted to see if I could create my own "tonal logic" for the

piece, a logic that would be at odds with the standard practice tonal harmony rules. I tried to bring my "tonal logic" into effect by using it as the basis of the probabilities in the dyad Markov chain. The set of dyads itself was limited firstly to only those dyads most consistently playable as double-stops on the violin. The available dyads were further limited by the pitch set I chose for the piece, a choice motivated by the tuning, range, and voice of the violin. I ended up with a specific set of all the dyads in the selected pitch set that were consistently playable and that would fit the "tessitura" I wanted for the piece.

Taking after tonal harmony, I assigned each step in my pitch set a conceptual "tonal logic" quality: either major, minor, or dissonant. Extending the metaphor, I assigned each interval value that was available in the dyad set its own "tonal logic" quality. "Major" intervals could only be used on "major" scale steps, "minor" intervals could only be used on "minor" scale steps, etc. In this way, small collections of dyads were associated with each pitch in the pitch set according to their shared "tonal logic" quality.

To really start generating material, the rhythm pattern was played through at a set tempo. Each time a note onset in the rhythm pattern was reached, a dyad was selected according to the probability tables of the Markov chain. Once the whole rhythm had been cycled through once, a new rhythm was generated and the process continued with the new rhythm. I generated quite a lot of material using this method, and then I selected my favourite phrases and imported them into Sibelius for further refinement. Exactly the same process was used to generate the electronic sound components, only instead of importing into Sibelius, the information was used to play software synthesizers, and the electronic sounds were placed at different octaves.

The name of the piece, the program notes, and the names of the movements are all references to the philosophy of Søren Kierkegaard. This piece was the first real project I'd done since my father passed away the previous summer. Dad was a professor of philosophy and theology, and Kierkegaard was a prominent figure in his thinking.

three stages

for violin and electronic sound

by

Thomas Merklinger

program notes

I feel best in the moment I put out the light and pull the quilt over my head. I sit up once more, look around the room with indescribable satisfaction, and then, good night.

- Søren Kierkegaard, Either/Or

performance notes

for violin

The piece is for solo violin and electronic sounds. The performance process is a kind of game, where the violin performer follows certain rules for what to play, depending on the state of the electronic sounds. The electronic sounds are played back by a Max/MSP patch.

The violin score is divided into three parts, each with a corresponding booklet.
One section and booklet is named **Either**. The other section and booklet is named **Or**.
The final booklet, which is just one sheet long, is named **Old age realizes the dreams of youth**.
The booklets do not have page numbers. The performer chooses which page of each booklet is the starting page for a given performance.

In each of the booklets, the material is organized into discrete phrases, each with its own definite ending marked by a rest with a fermata and with double bar lines.

There are two electronic sounds, the **mid-range** sound and the **low-range** sound. The **mid-range** sound is in a range just below the violin part. The **low-range** sound is in the very low bass range, and is sometimes more felt than heard.

When only the **mid-range** sound is heard, the performer reads from the **Either** booklet.
When both the **mid-range** sound and the **low-range** sound are heard, the performer reads from the **Or** booklet.

When reading from either the **Either** or the **Or** booklets, whenever an electronic sound begins, if the performer is not already playing a phrase, the next phrase in the booklet is played.
At the end of each phrase, the rest marked with a fermata is held until a new electronic sound begins. Even if an electronic sound is already playing when the violin phrase ends, the violin holds the fermata until a *new* electronic sound begins.

When both the **mid-range** sound and the **low-range** sound are no longer heard, the performer plays any two stave systems of their choosing from the **Old age realizes the dreams of youth** booklet. When the performer has finished playing the chosen stave systems, the piece has ended.

For a step-by-step example of the process, see page 3 of the performance notes.

The tempo is very, very slow, *largo*, around♩ = 42, with *rubato* throughout. The dynamic throughout is soft and expressive. The violin should always stay slightly louder than the electronic sounds.

performance notes

for electronic sounds

The electronic sounds are played back using a Max/MSP patch. The Max/MSP patch and the required files are included in the score. A computer that can run the patch and a sound system to amplify the audio output will be required.

The Max/MSP patch requires a technician/performer to start the the playback process of the patch. Starting the playback process also commences the performance. After the playback process has been started, the patch needs no further input during the performance.

To start the patch, press the **Start Me** button. Press **Start Me** button again to stop the patch. There is no way to pause the patch: each time the patch is turned on, it starts again from the beginning.

The **mid-range** sound is just below the range of the violin material.
The **low-range** sound is very low, and may not be able to be heard clearly (or at all) on lower-end consumer speakers, especially computer or smartphone speakers. Studio-quality headphones or monitor speakers should be able to reproduce the **low-range** sound.
A subwoofer may be necessary for all tones to speak clearly in a performance context.

During the rehearsal or soundcheck process, the sound technician should set the soundsystem volume so that the **mid-range** electronic sounds are at a dynamic level just underneath the violin playing at a dynamic of *mezzoforte*.

preparing for performance

1. Ensure that the **soundplayer.maxpat** file and the midrange.wav and lowrange.wav audio files are in the same folder.
2. Double-click on the **soundplayer.maxpat** icon to open the patch.
3. Remember to turn on Max/MSP audio processing.
4. To commence the performance, click the **Start Me** button to start the patch.
5. When the performance has finished, turn down the sound system level, turn off Max/MSP audio processing, and close Max/MSP, or do any other technical steps required for turning off the sound reinforcement setup used for the performance.

An example run-through of the performance process:

1. The technician/performer presses the **Start Me** button in the Max/MSP patch, starting the performance.

2. At first, no sounds will be heard.

3. After a period of time, the **mid-range** sound will begin to play.

4. As long as only the **mid-range** sound is playing, the violinist reads from the **Either** booklet.

5. Whenever an electronic sound begins, if the performer is not already playing a phrase, the next phrase in the booklet is played. At the end of each phrase, the rest marked with a fermata is held until a new electronic sound begins.

6. After a period of time, the **low-range** sound will also begin to play. At this point, both the **mid-range** sound and the **low-range** sound will be playing at the same time.

7. As long as both the **mid-range** sound and the **low-range** sound are both playing, the violinist reads from the **Or** booklet.

8. After a period of time, the **low-range** sound will stop playing. At this point, the **mid-range** sound will again be the only electronic sound heard. The violinist will return to reading from where they left off in the **Either** booklet.

9. After a period of time, the **mid-range** sound will stop playing. At this point, no electronic sounds will be playing at all. The violinist waits a moment to be sure the electronic sounds have completely stopped.

10. Once the electronic sounds have stopped playing, the violinist plays two phrases of their choosing from the **Old age realizes the dreams of youth** booklet. When the violinist has finished playing these phrases, the piece has ended.

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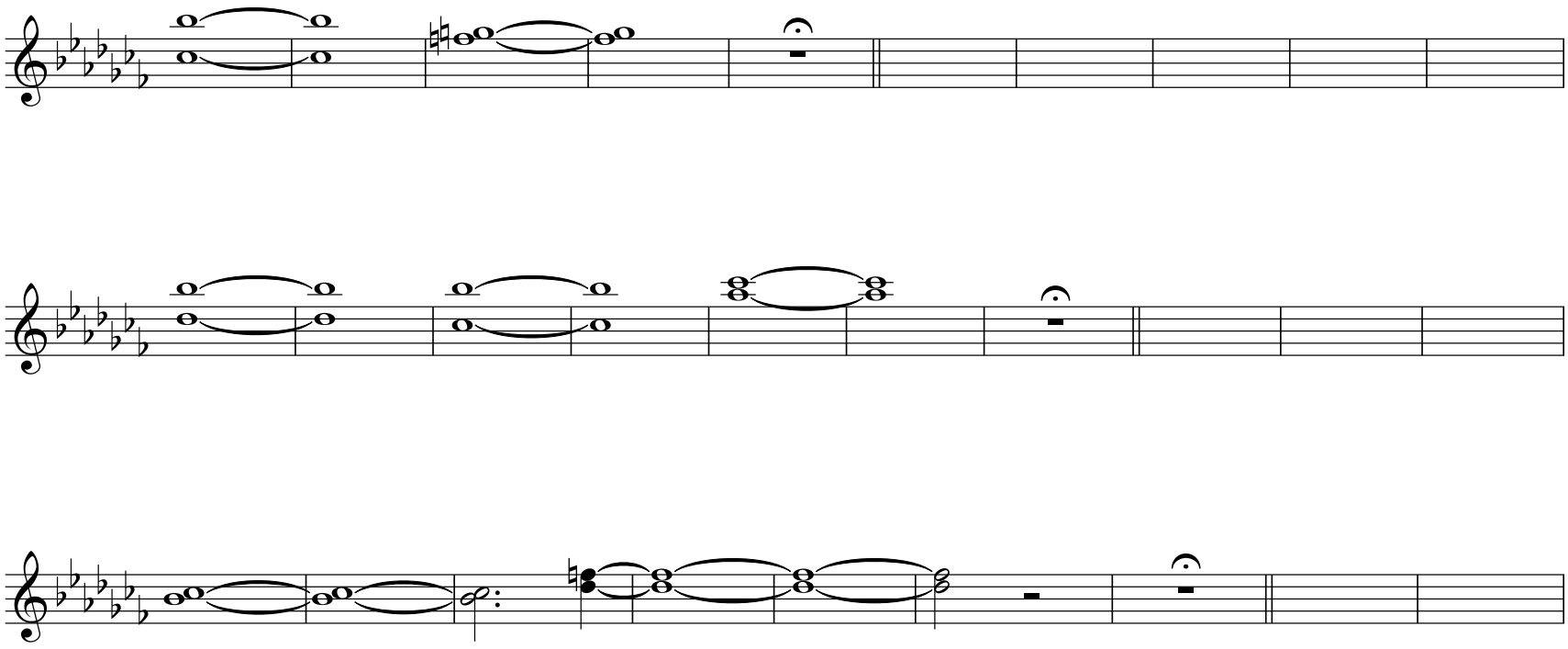
either



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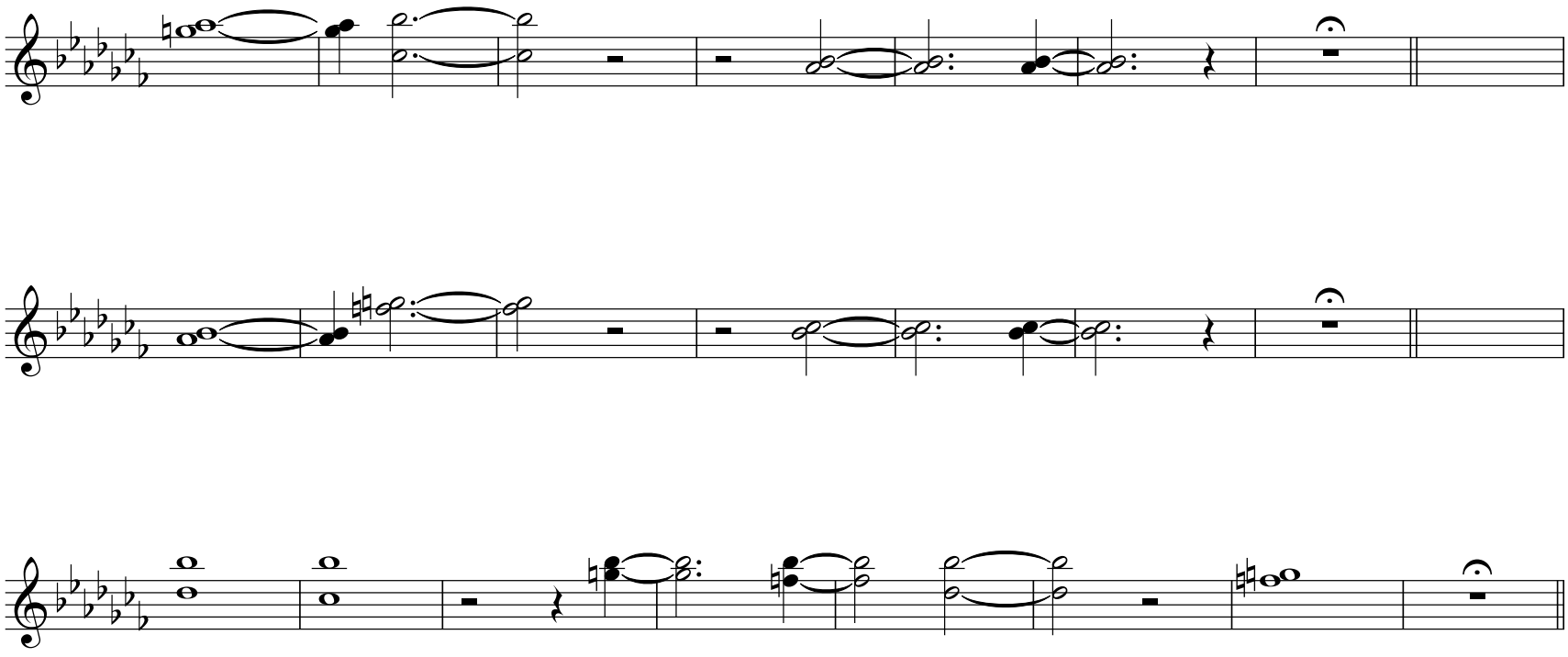

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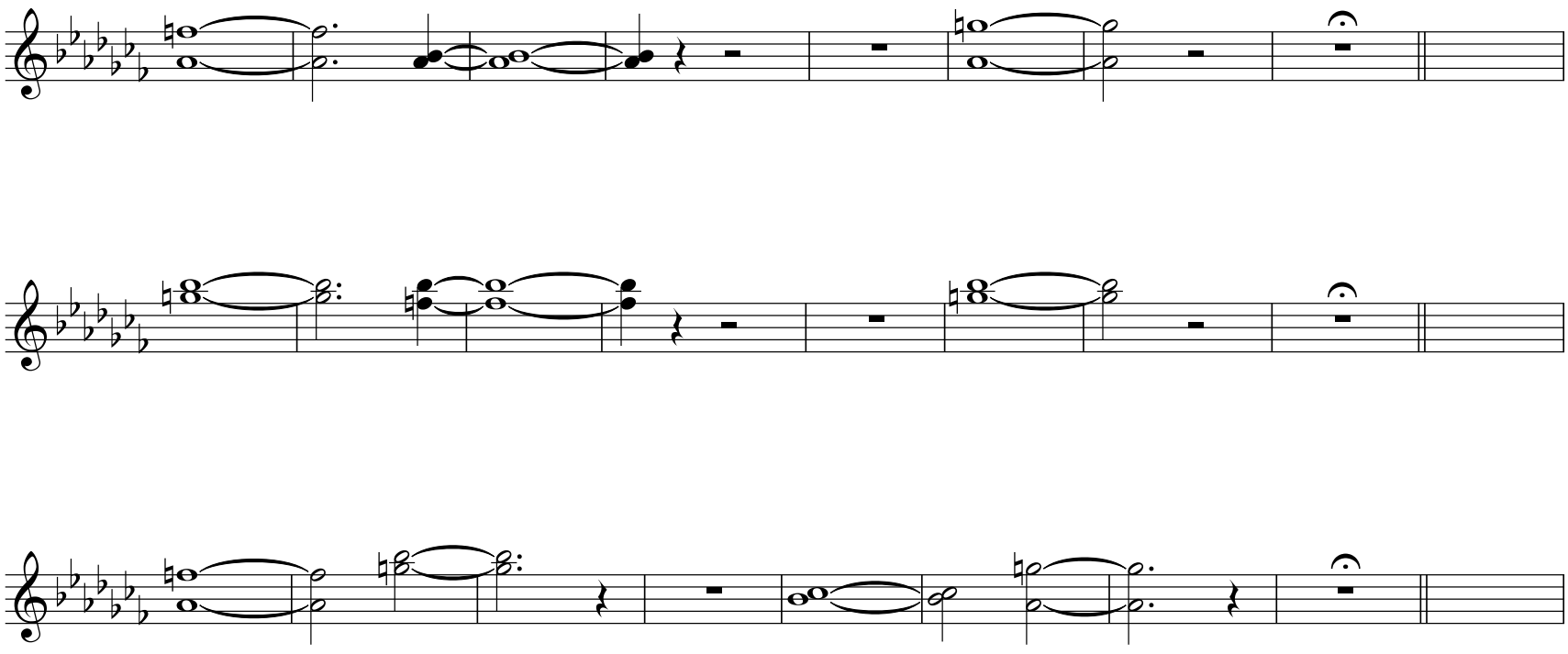

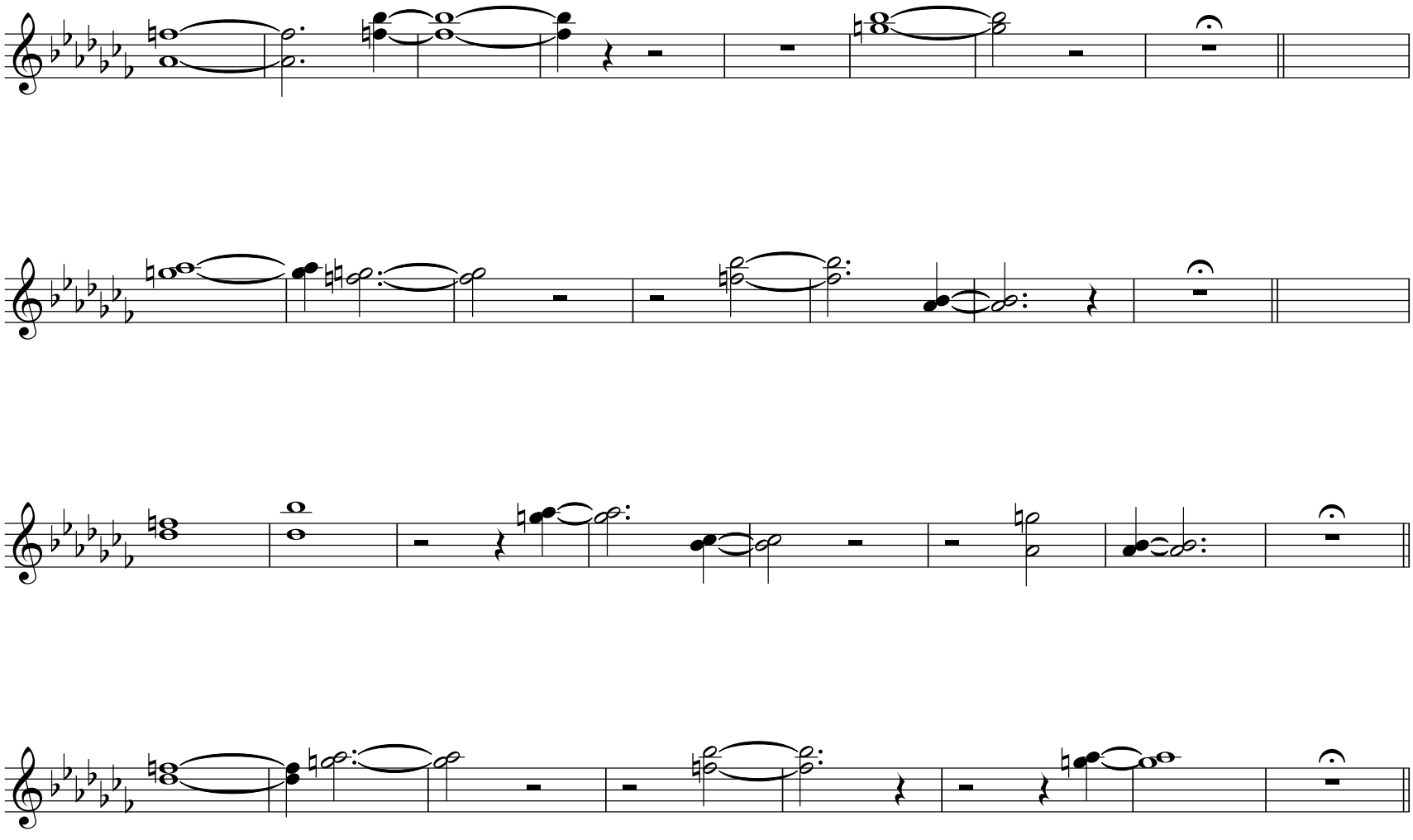

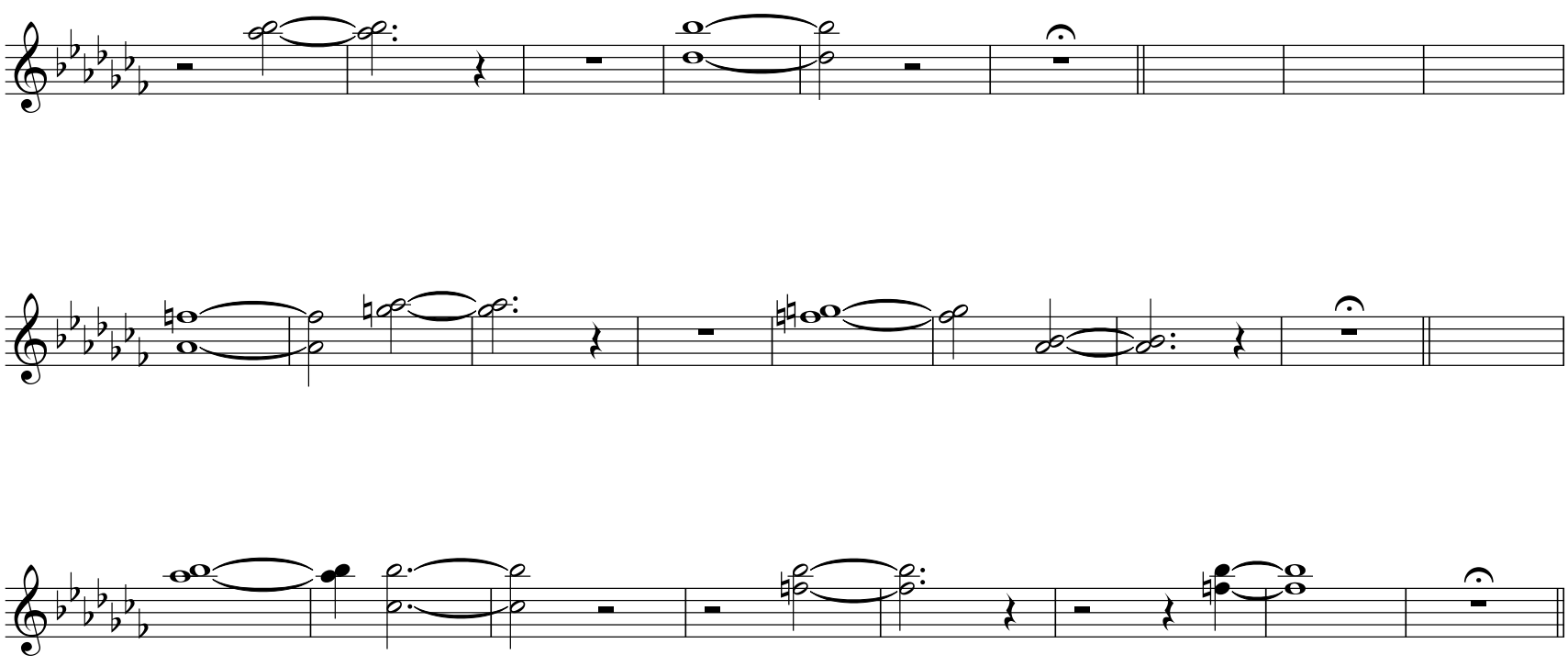

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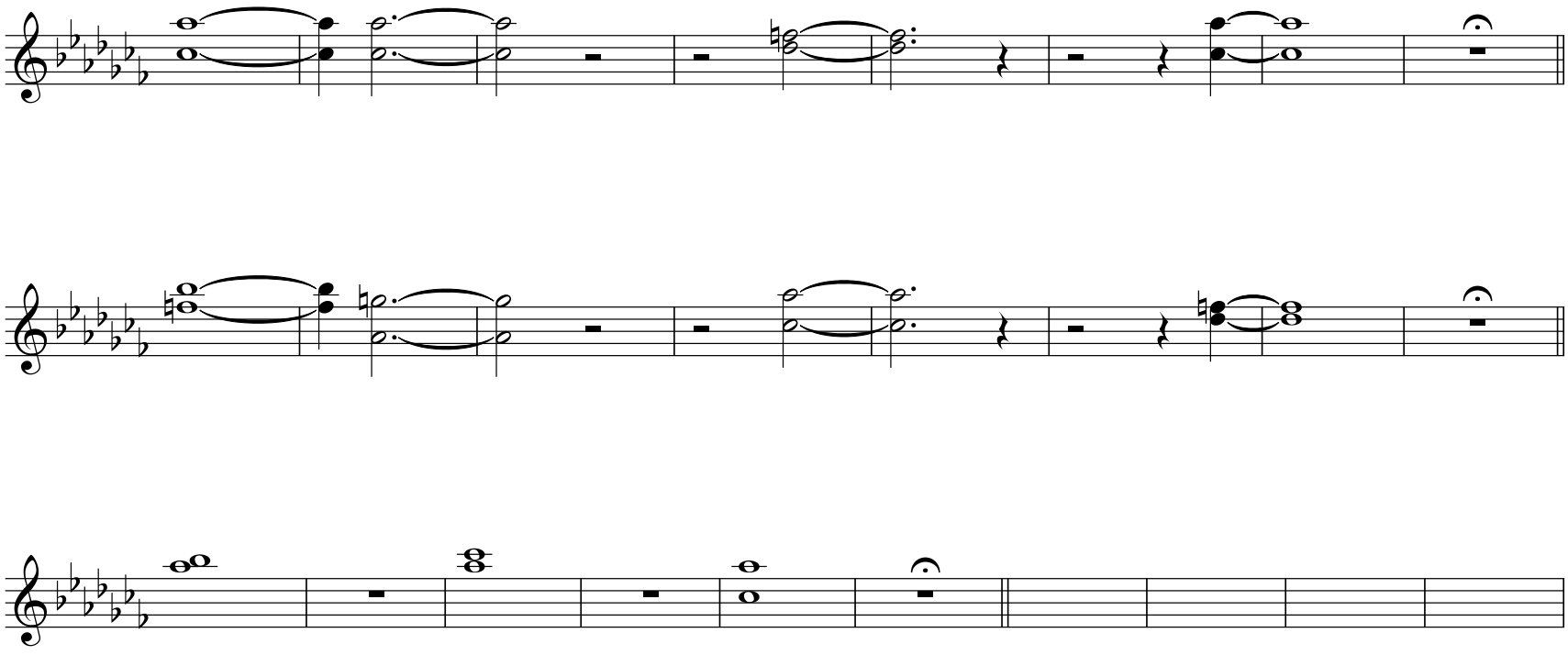

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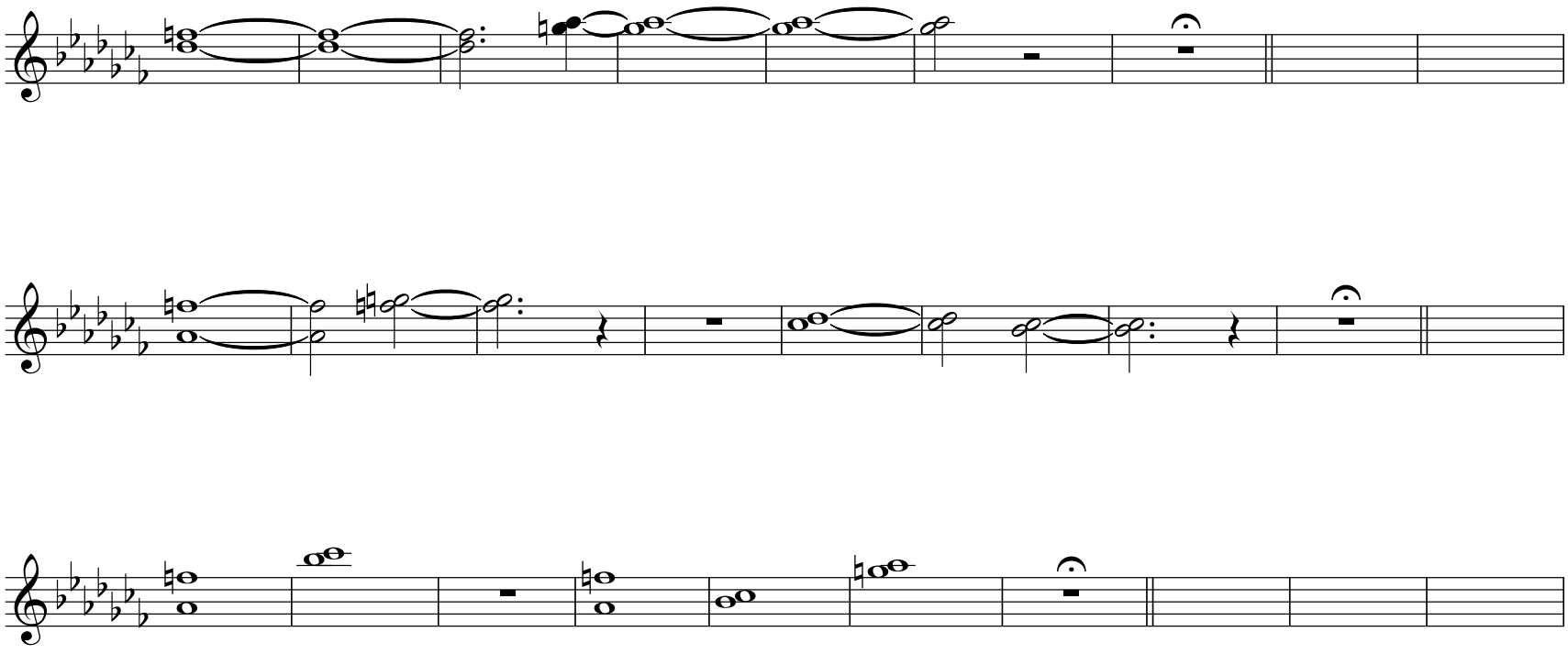

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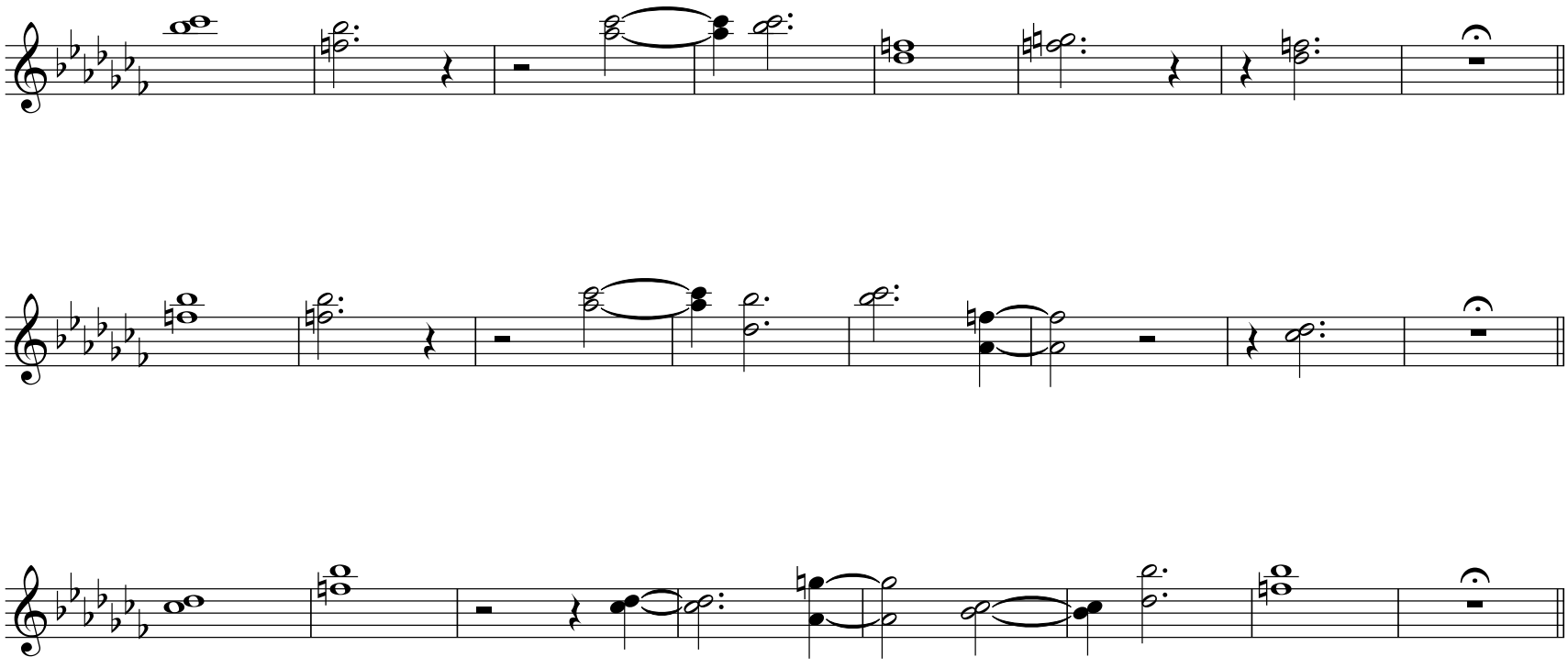

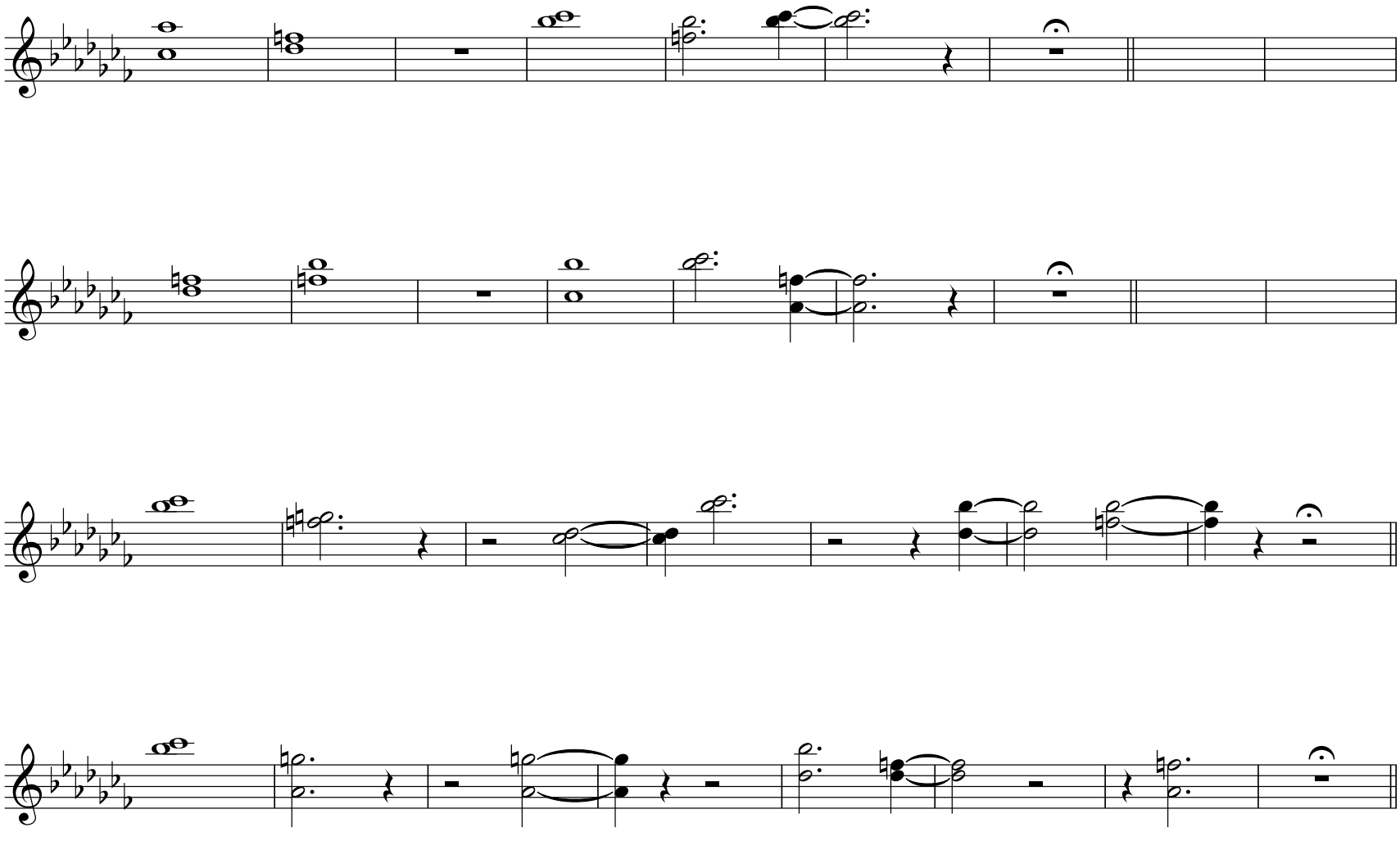

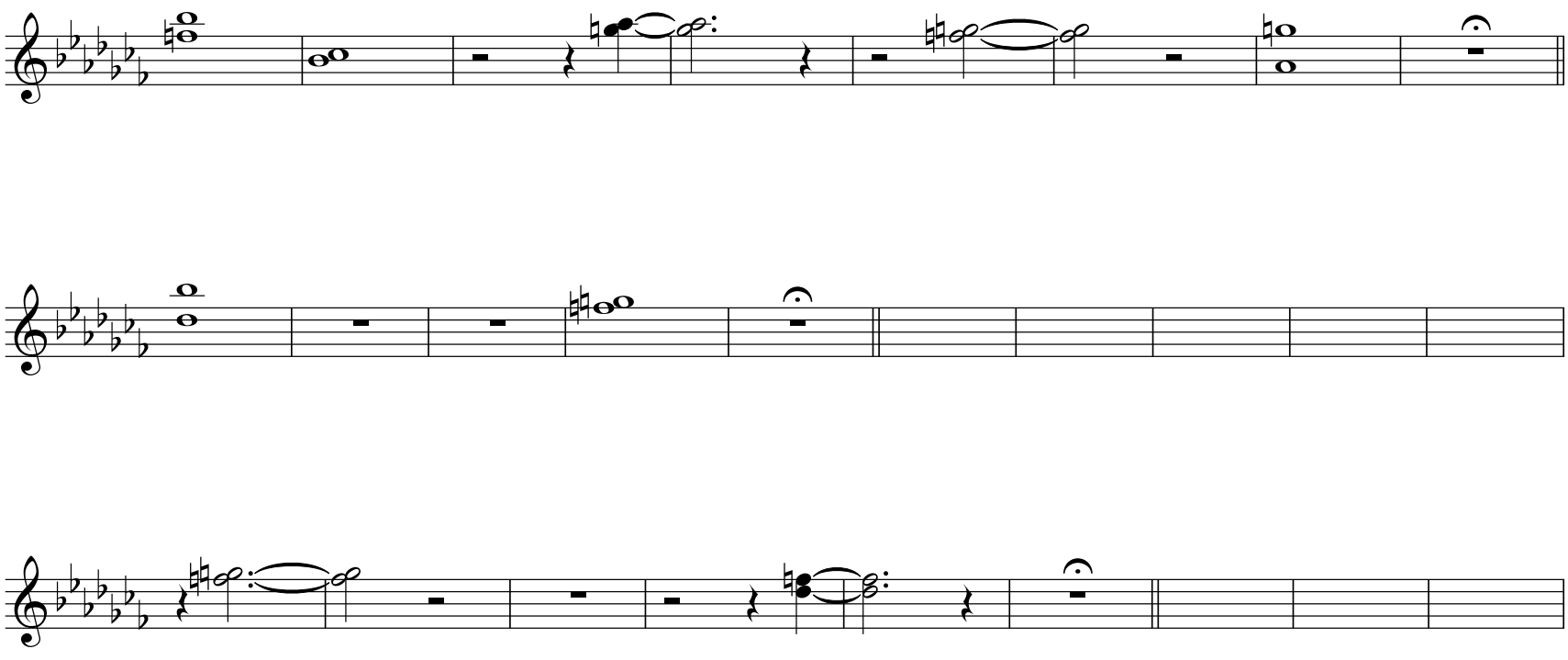

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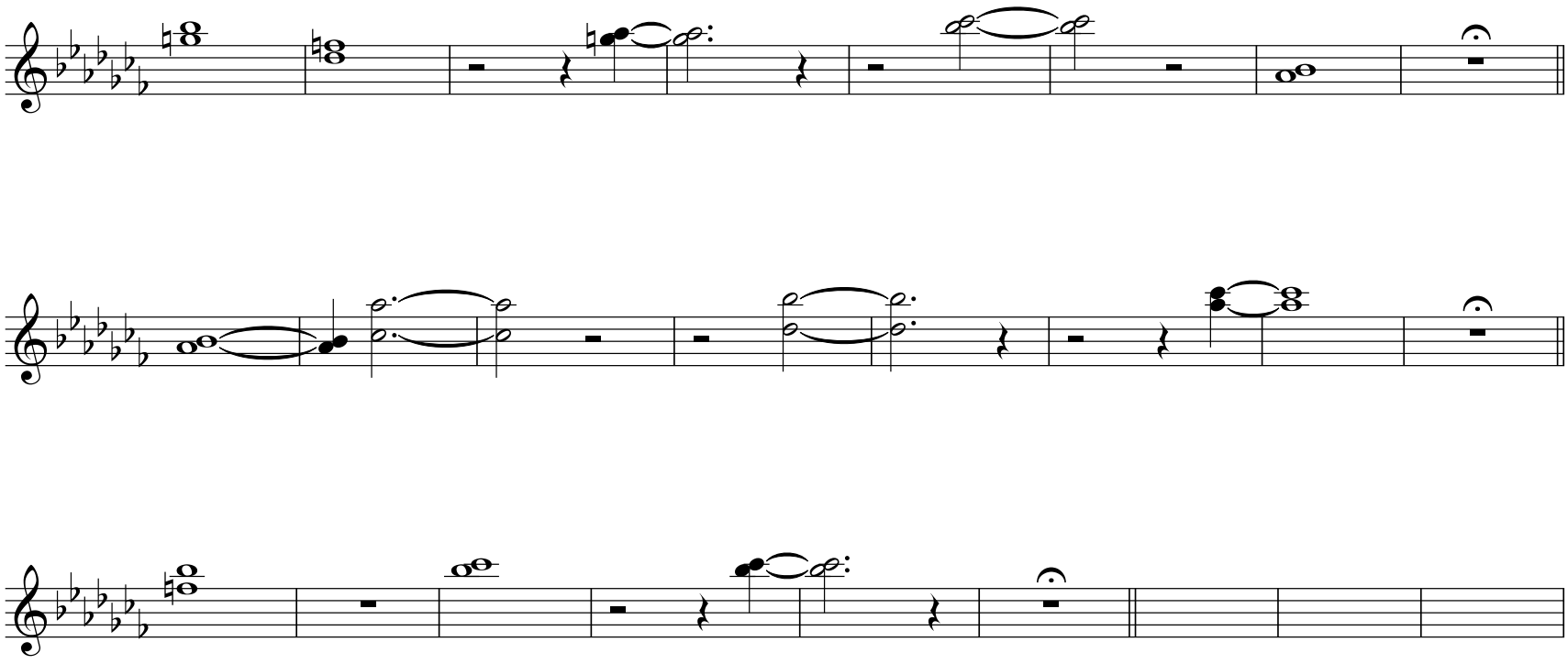

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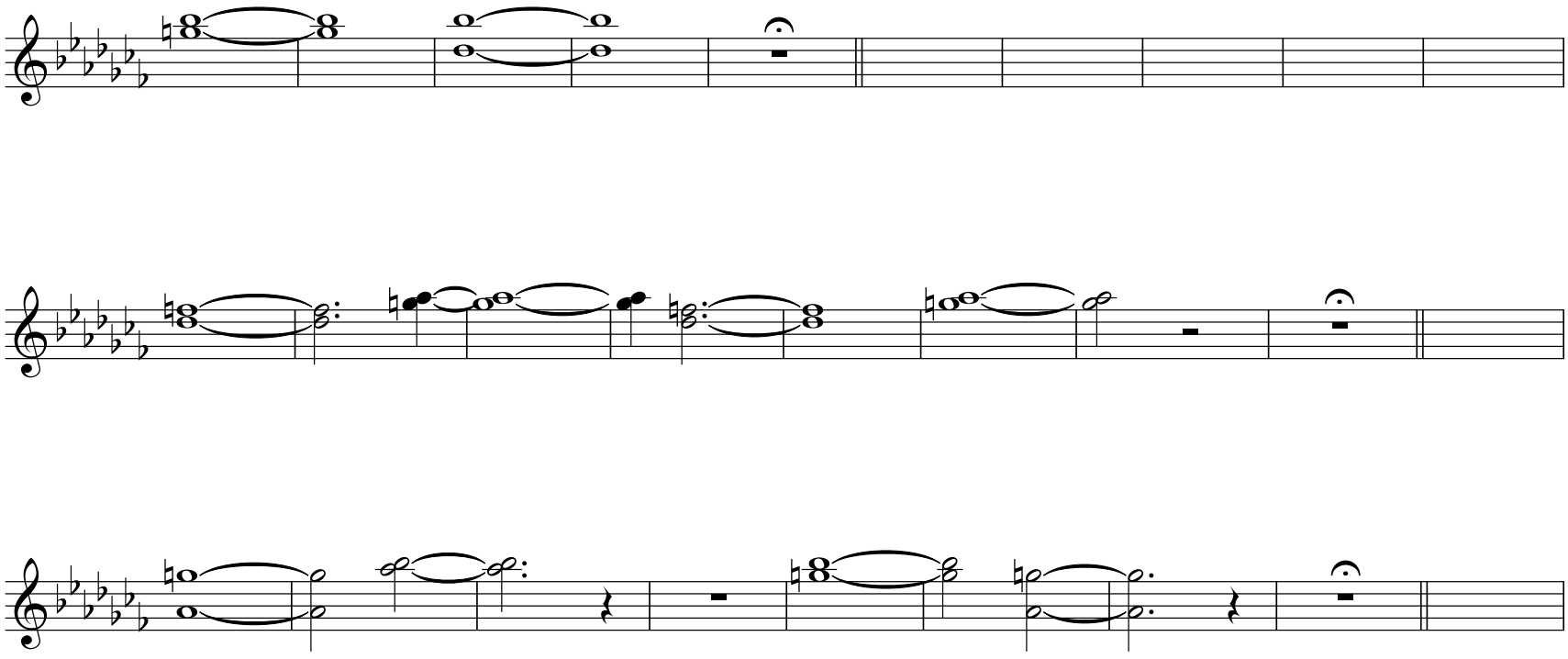

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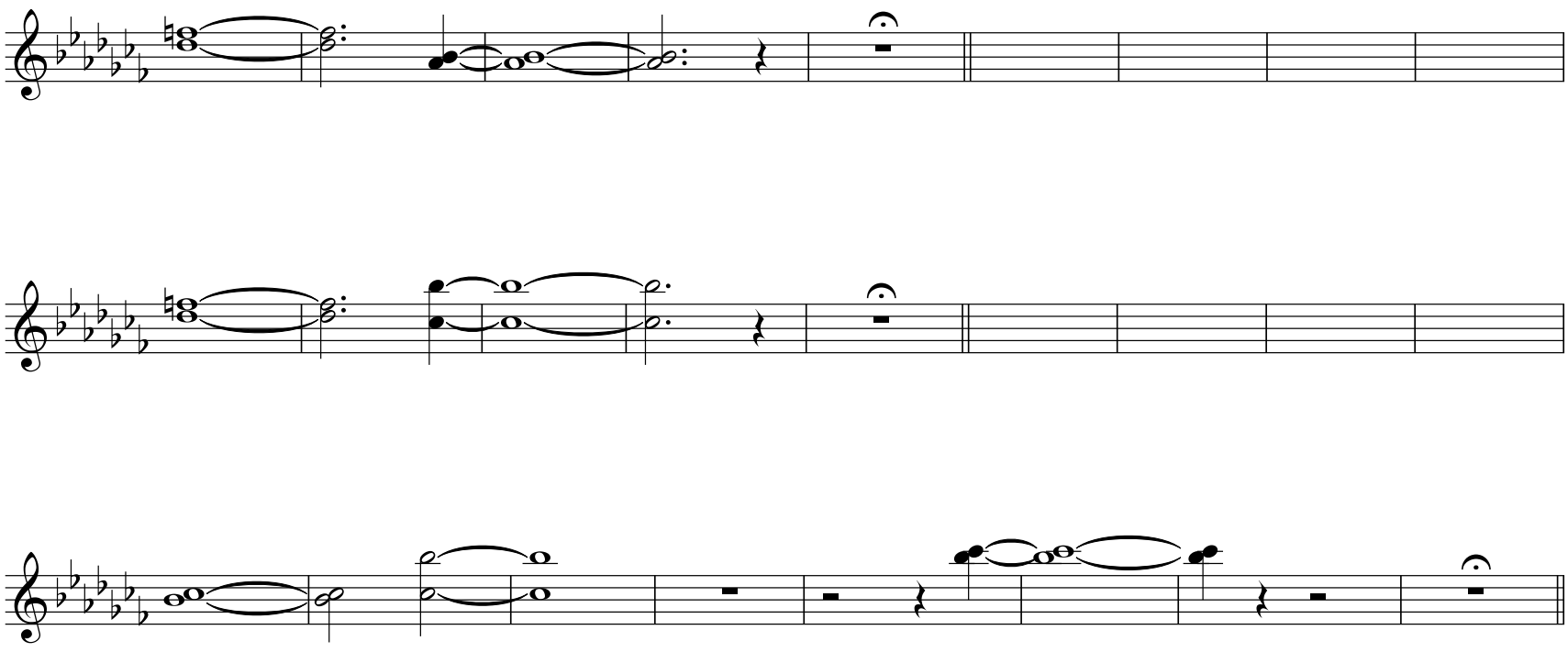

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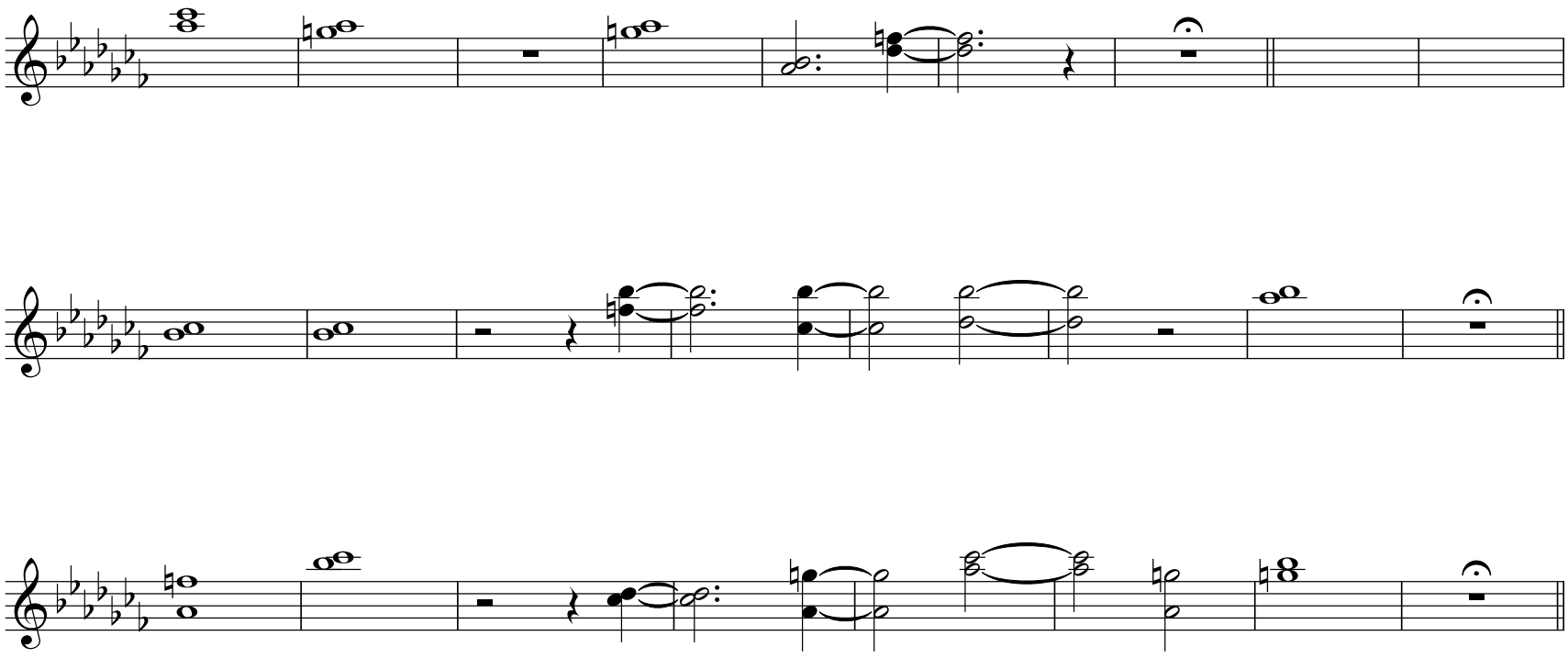

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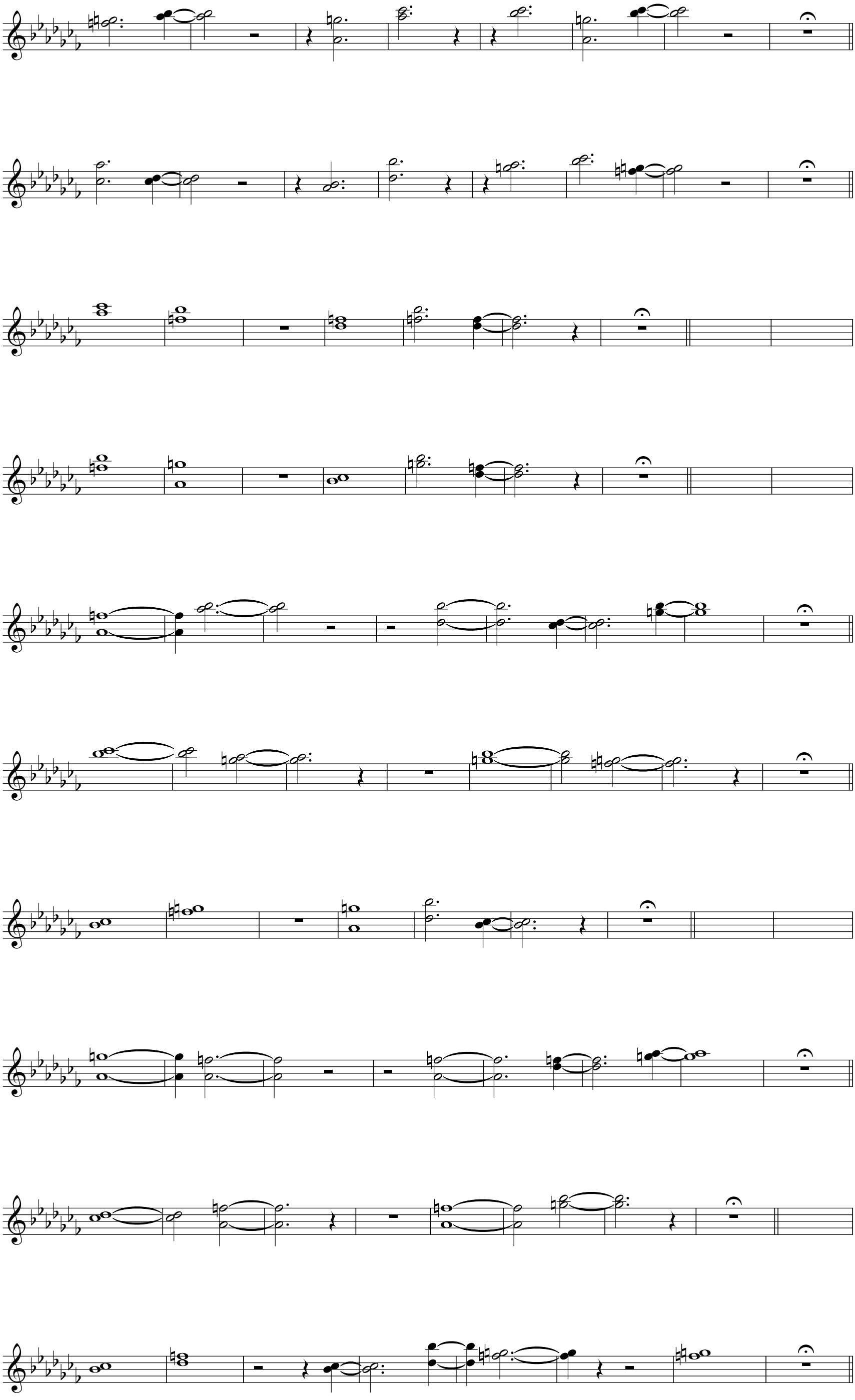

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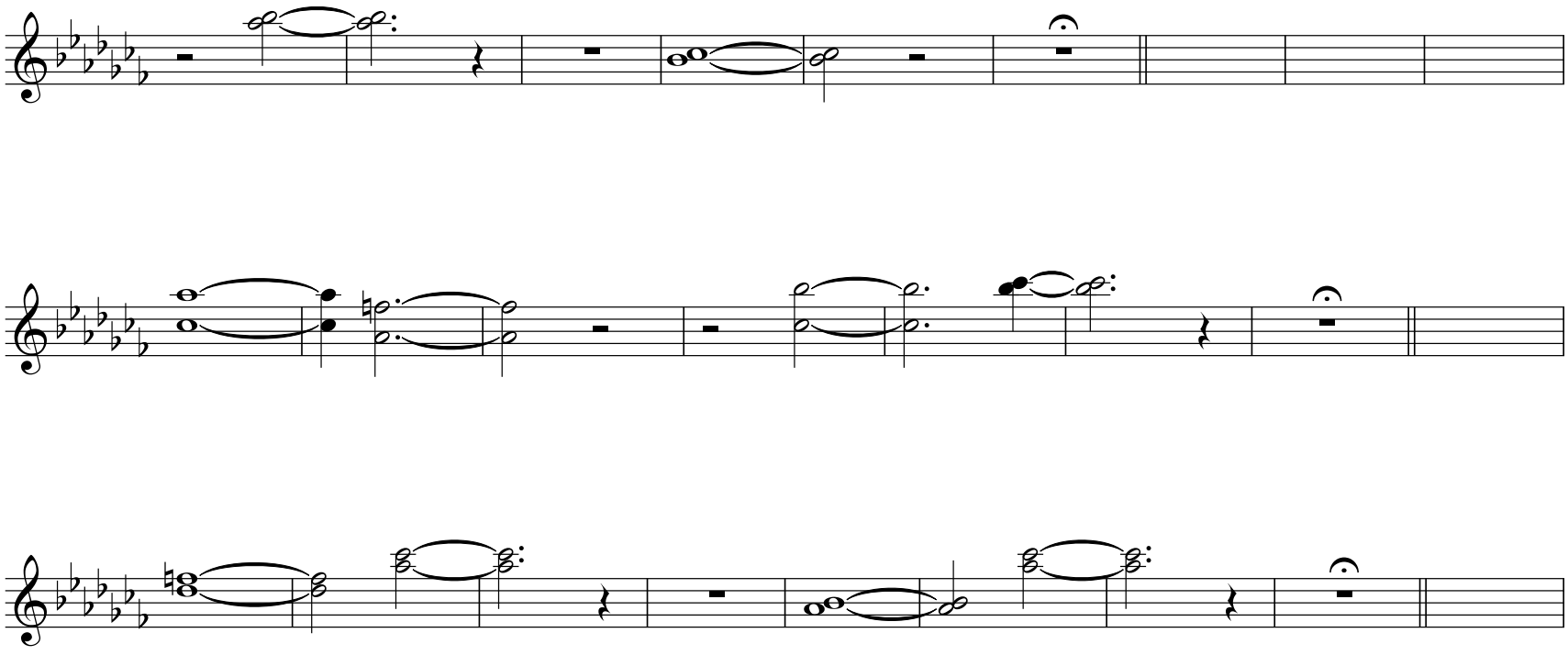

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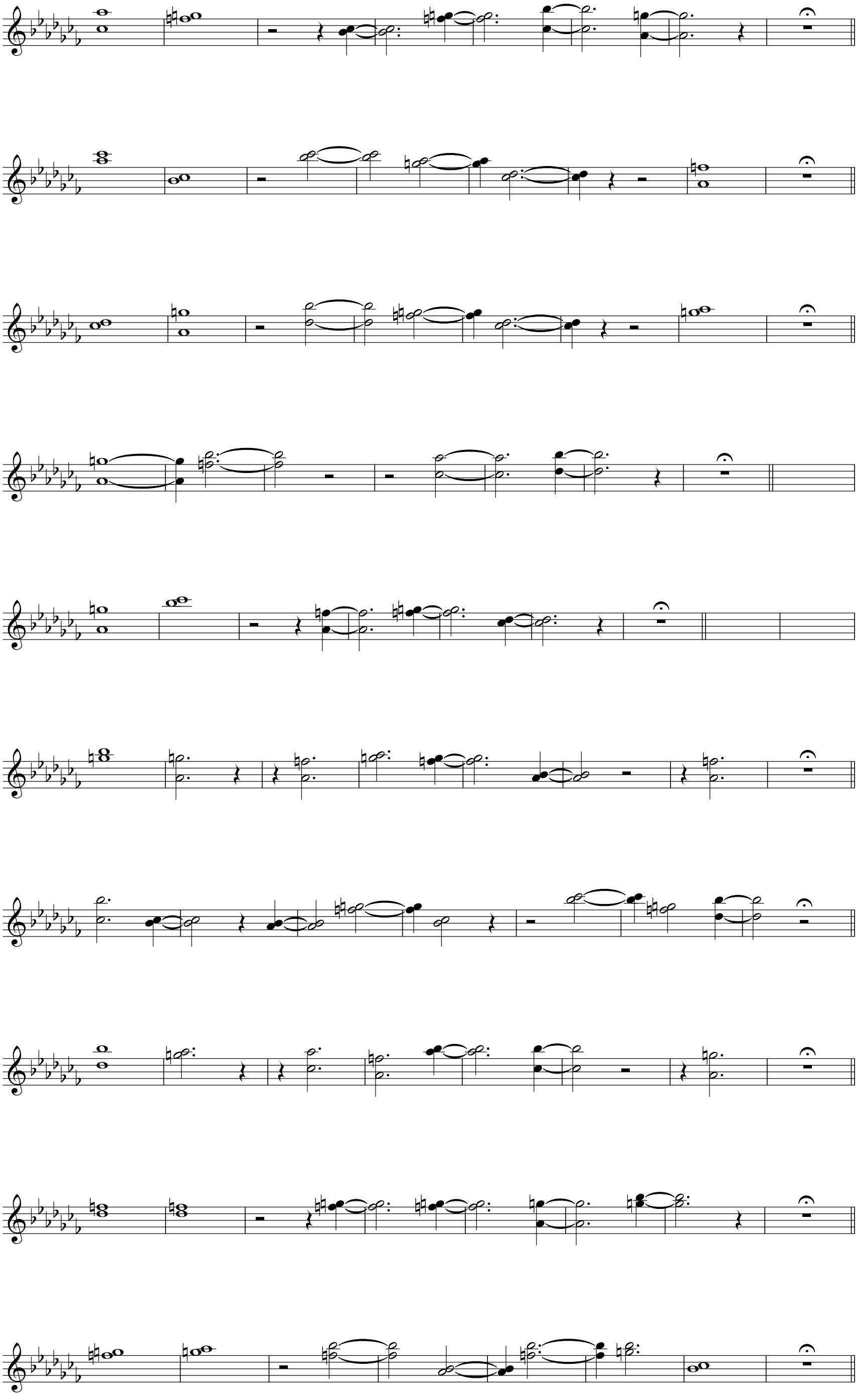

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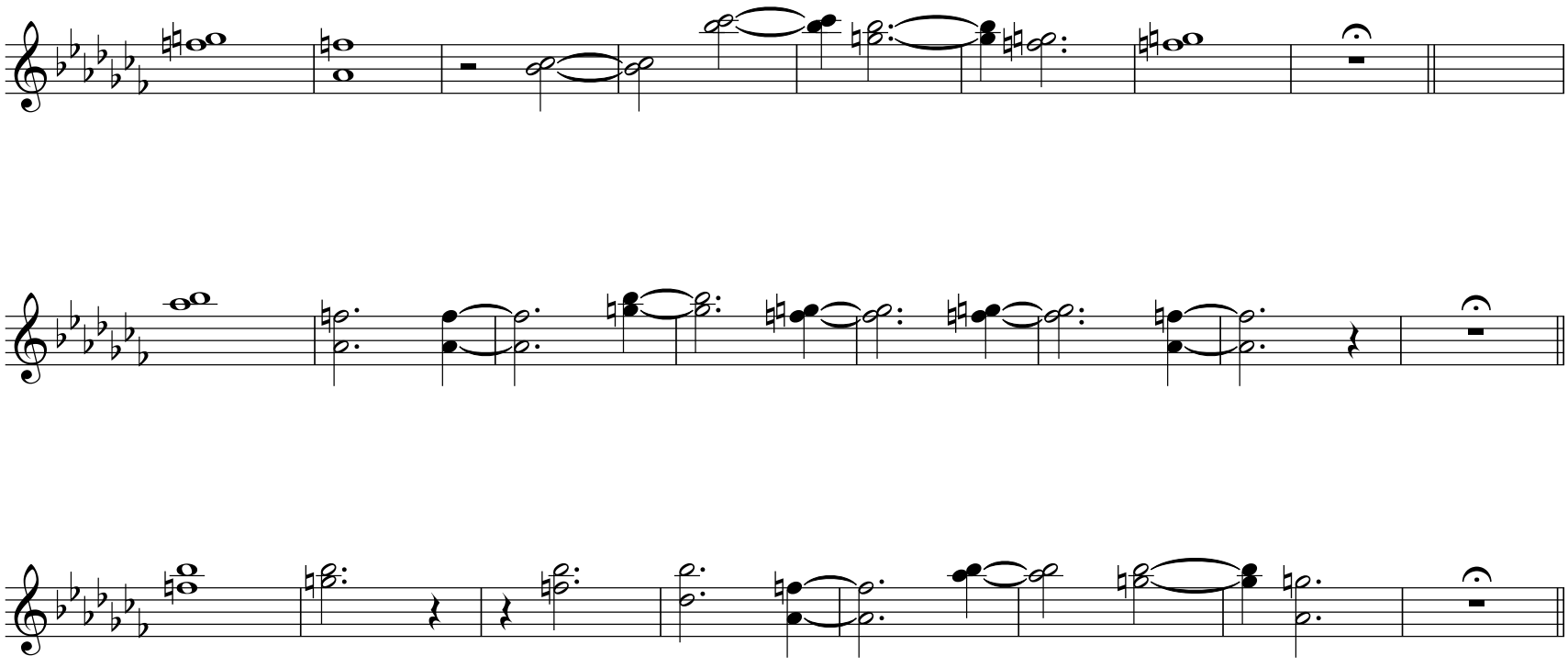

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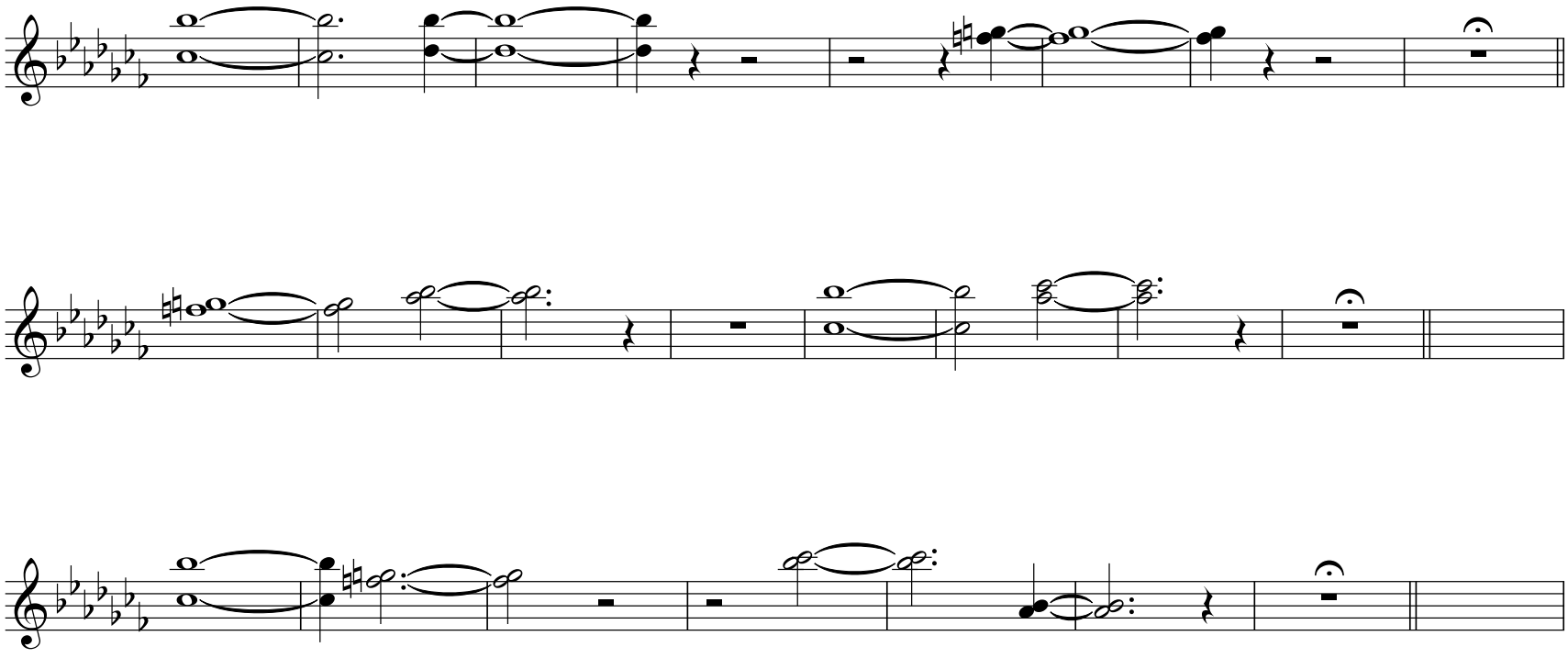

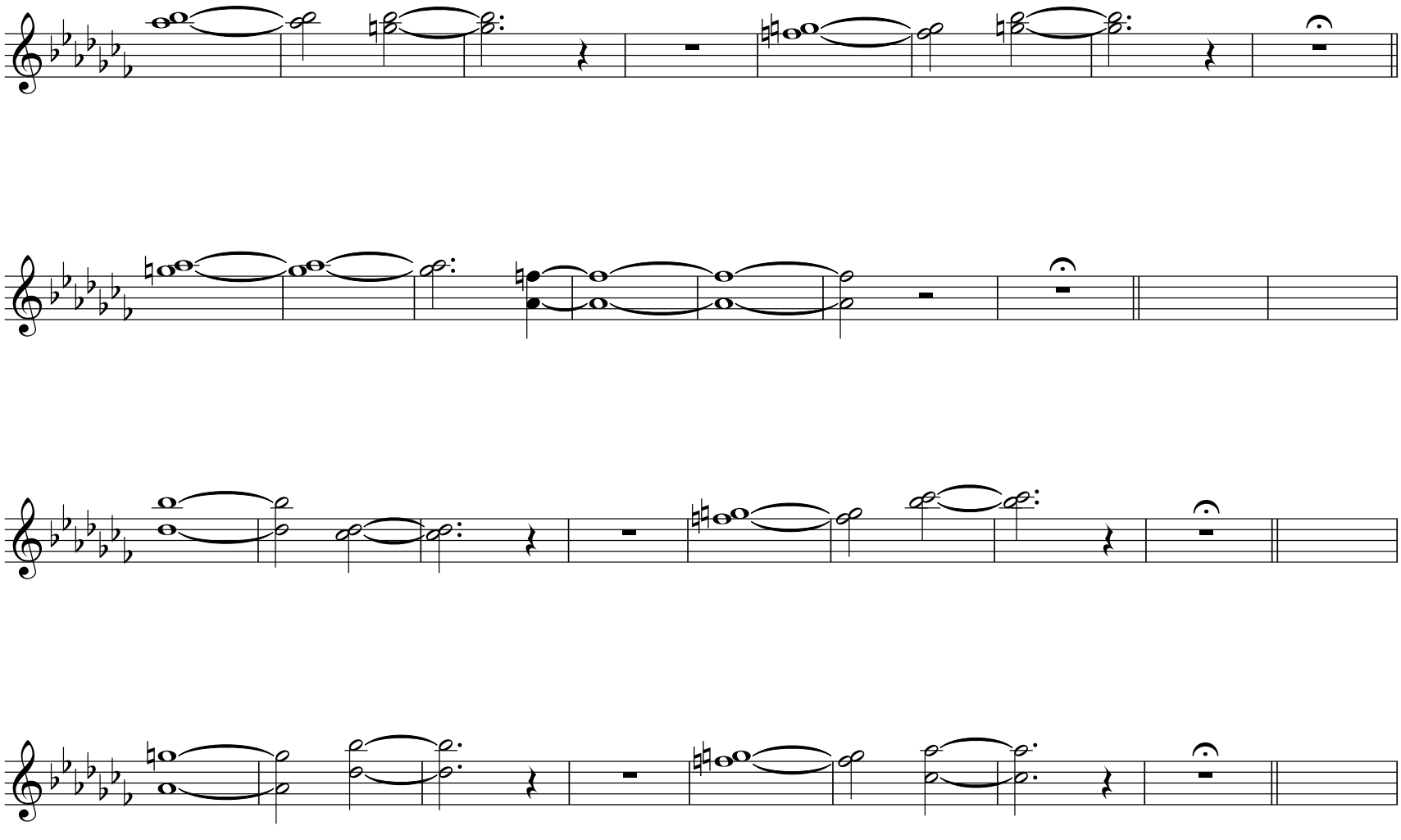

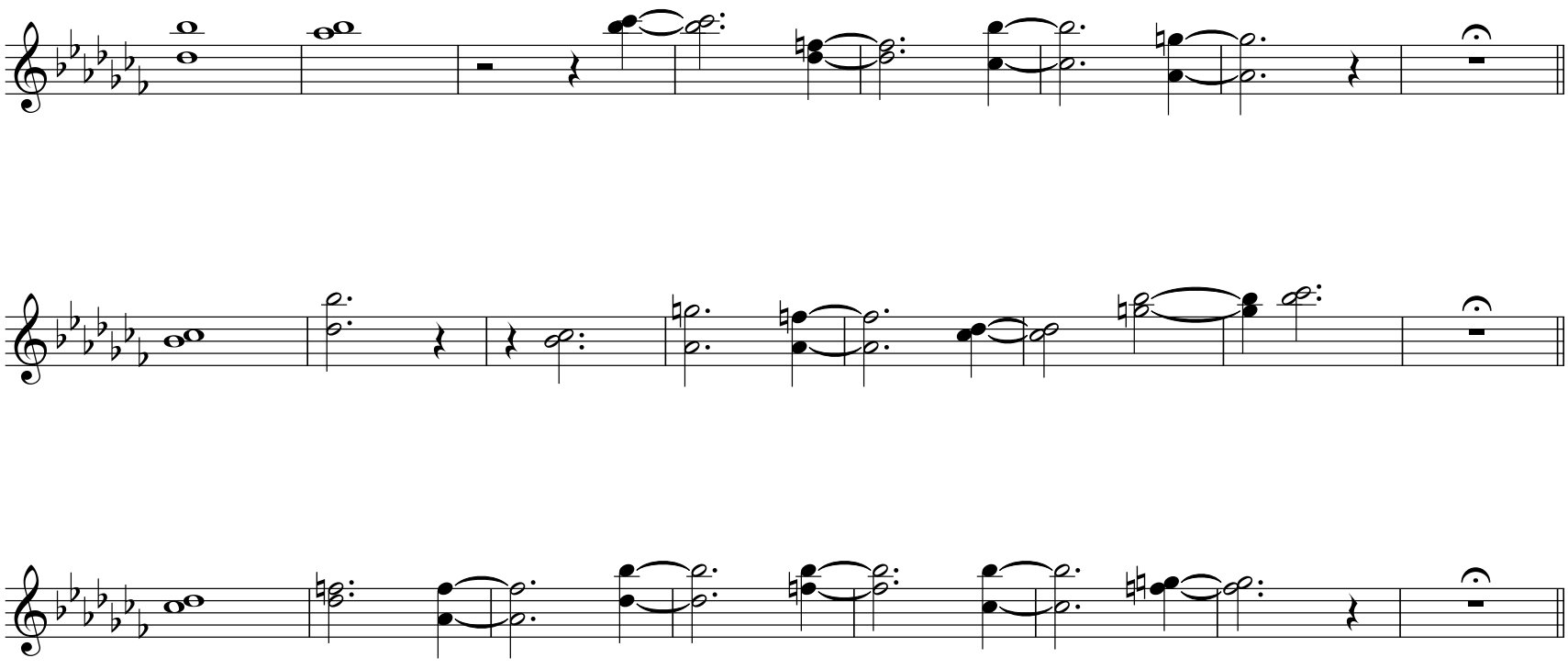

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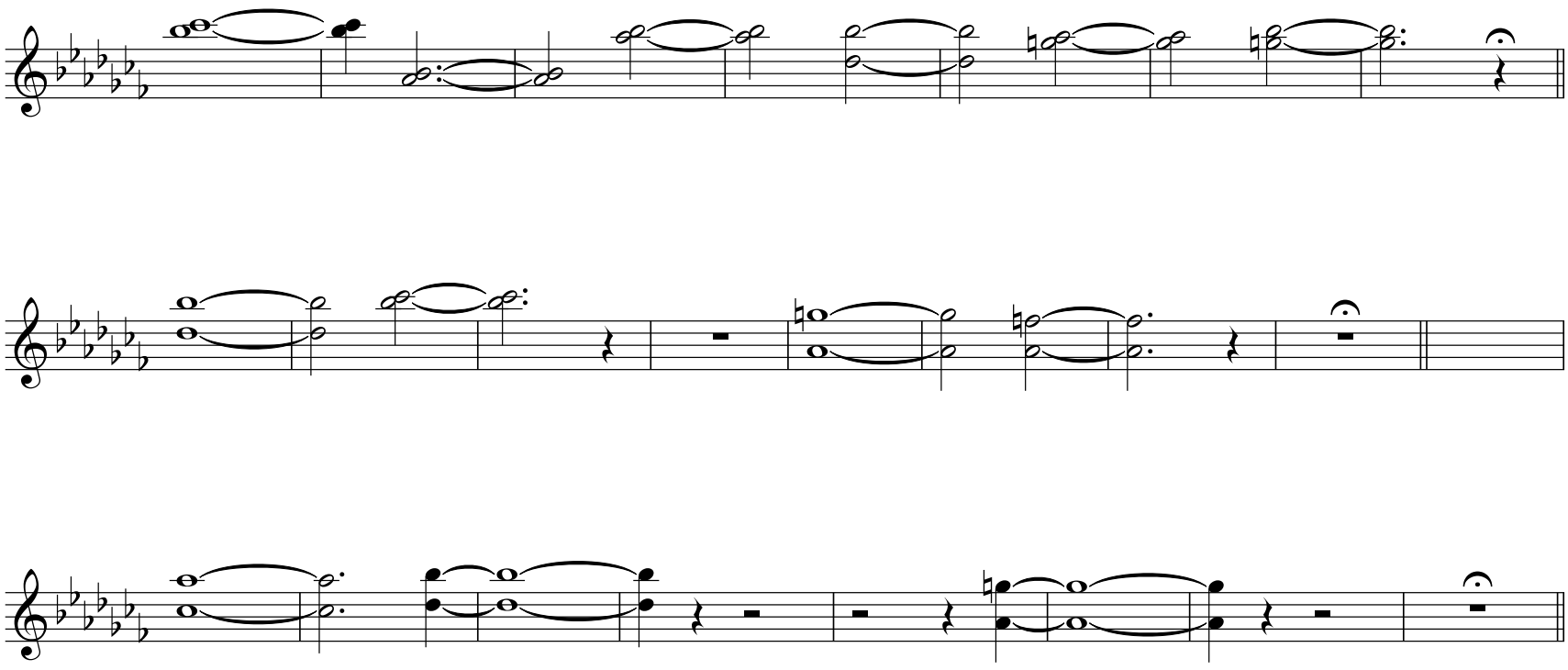

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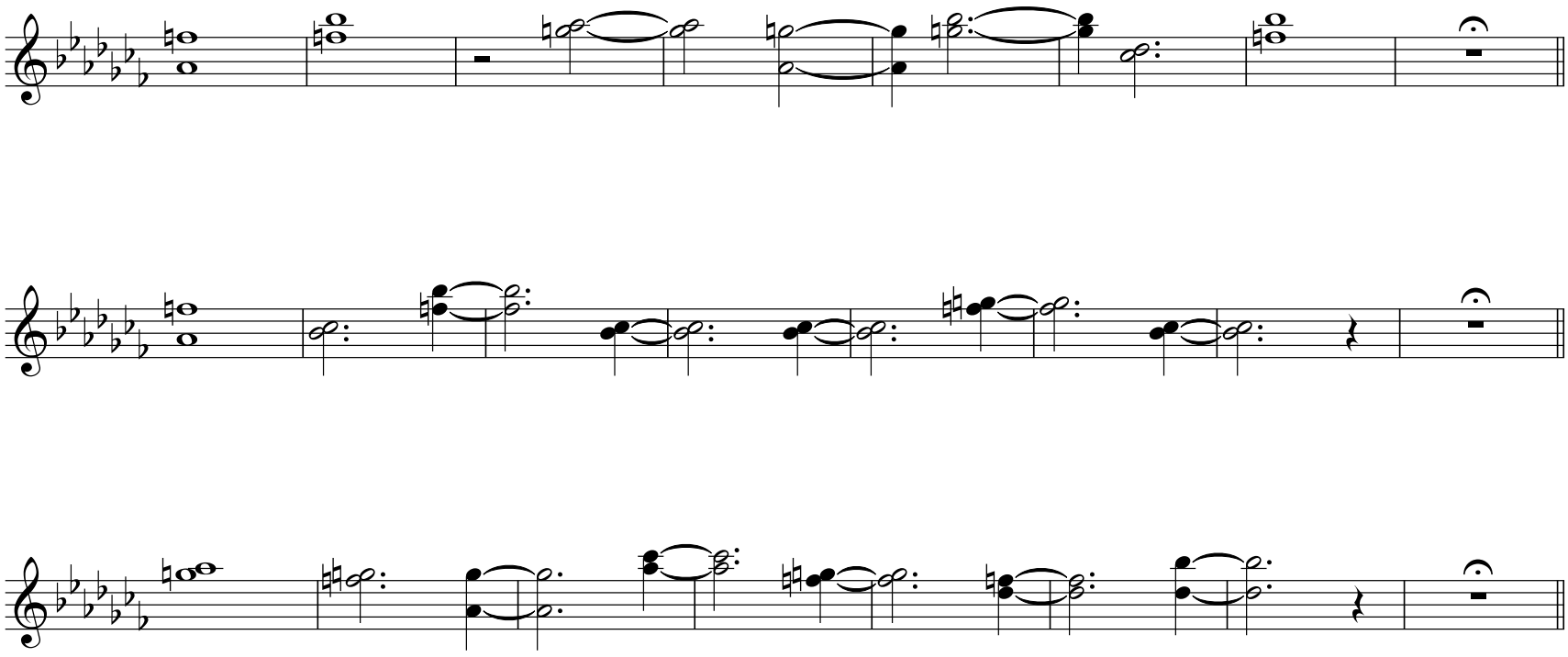

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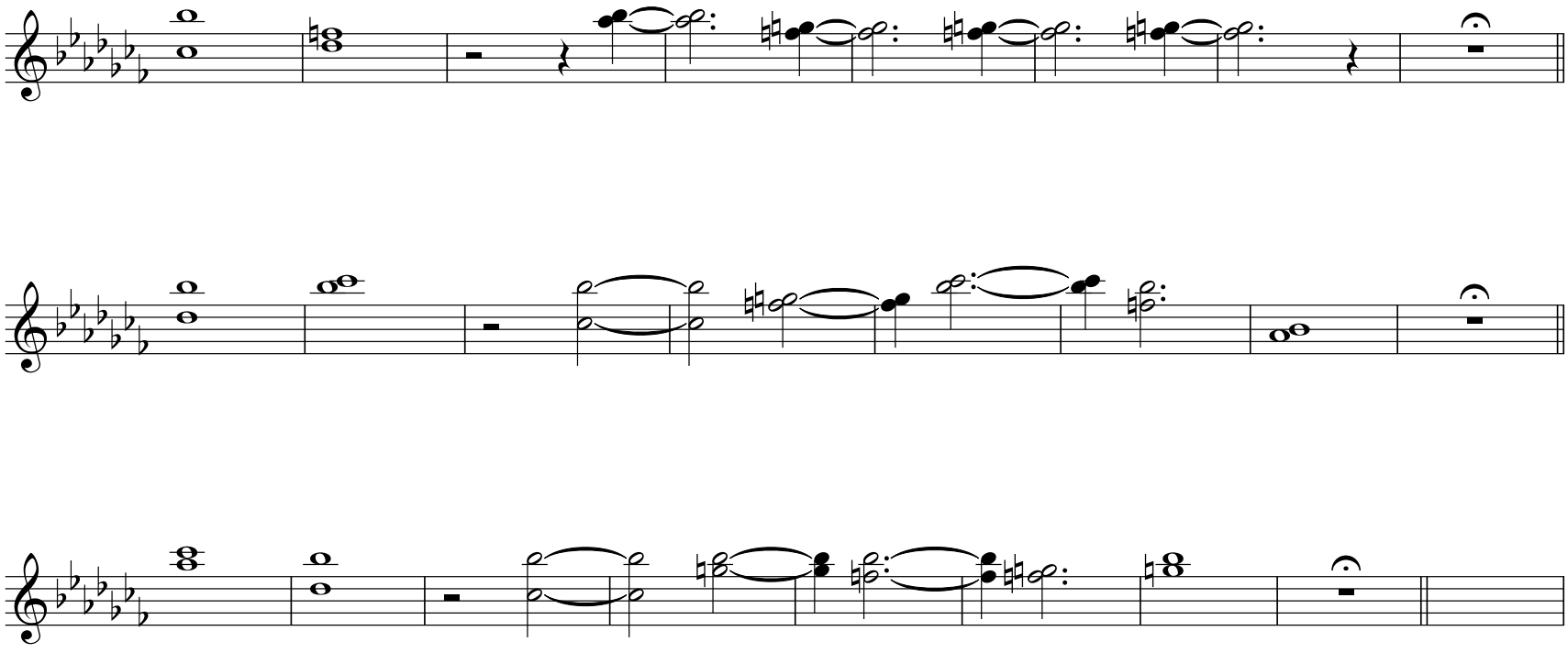

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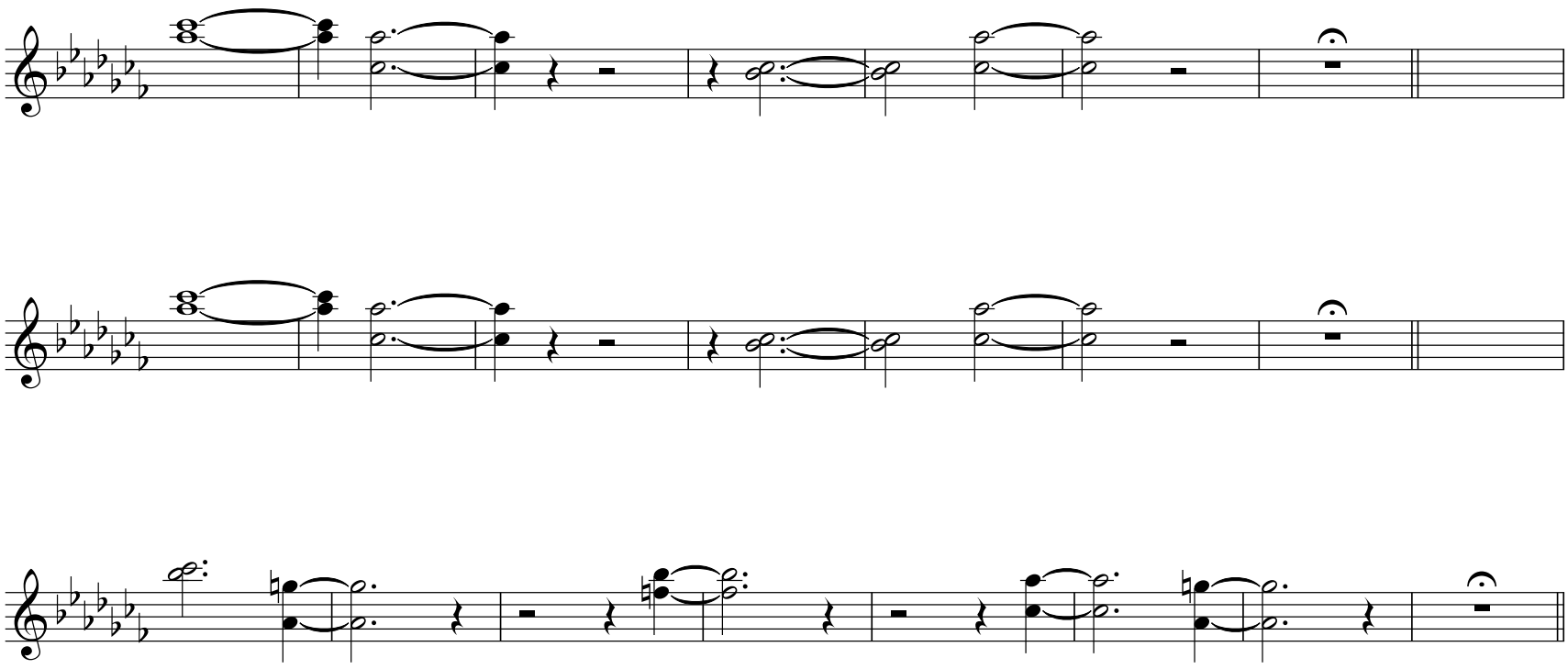

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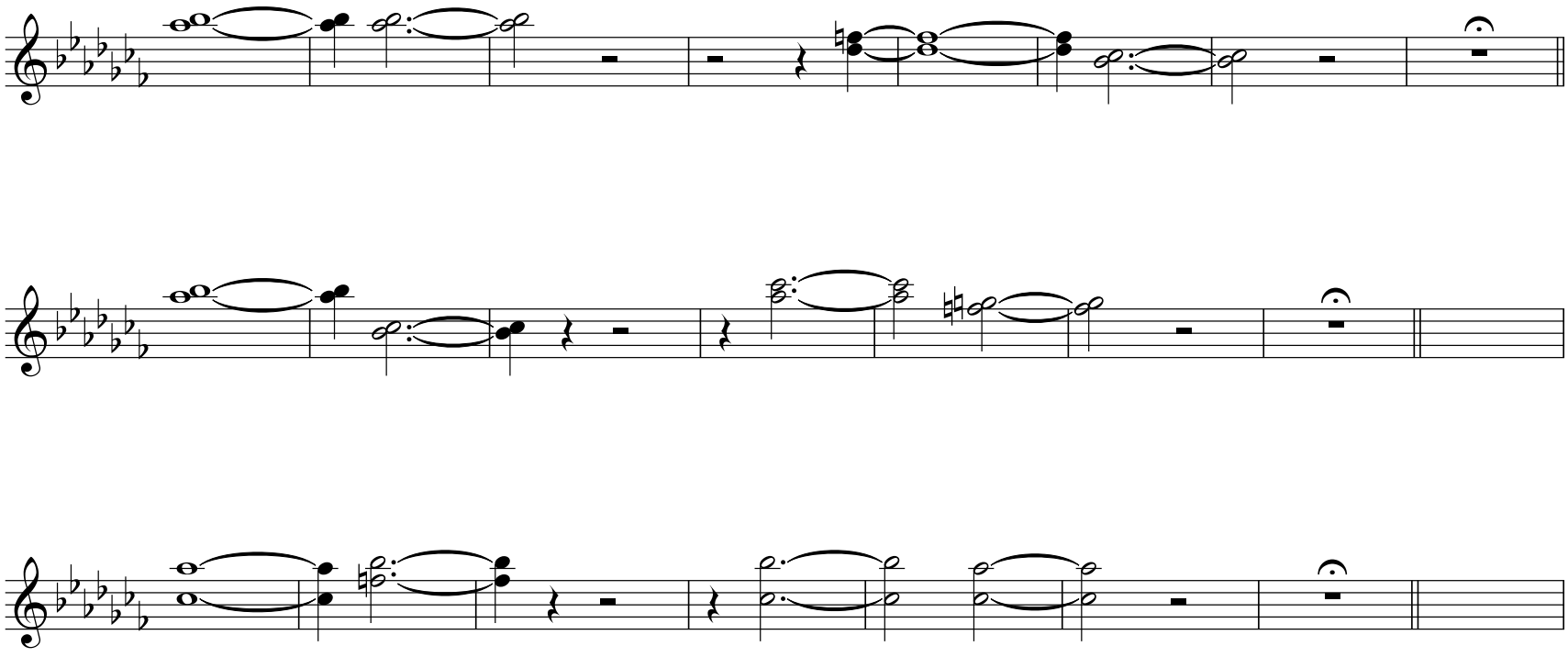

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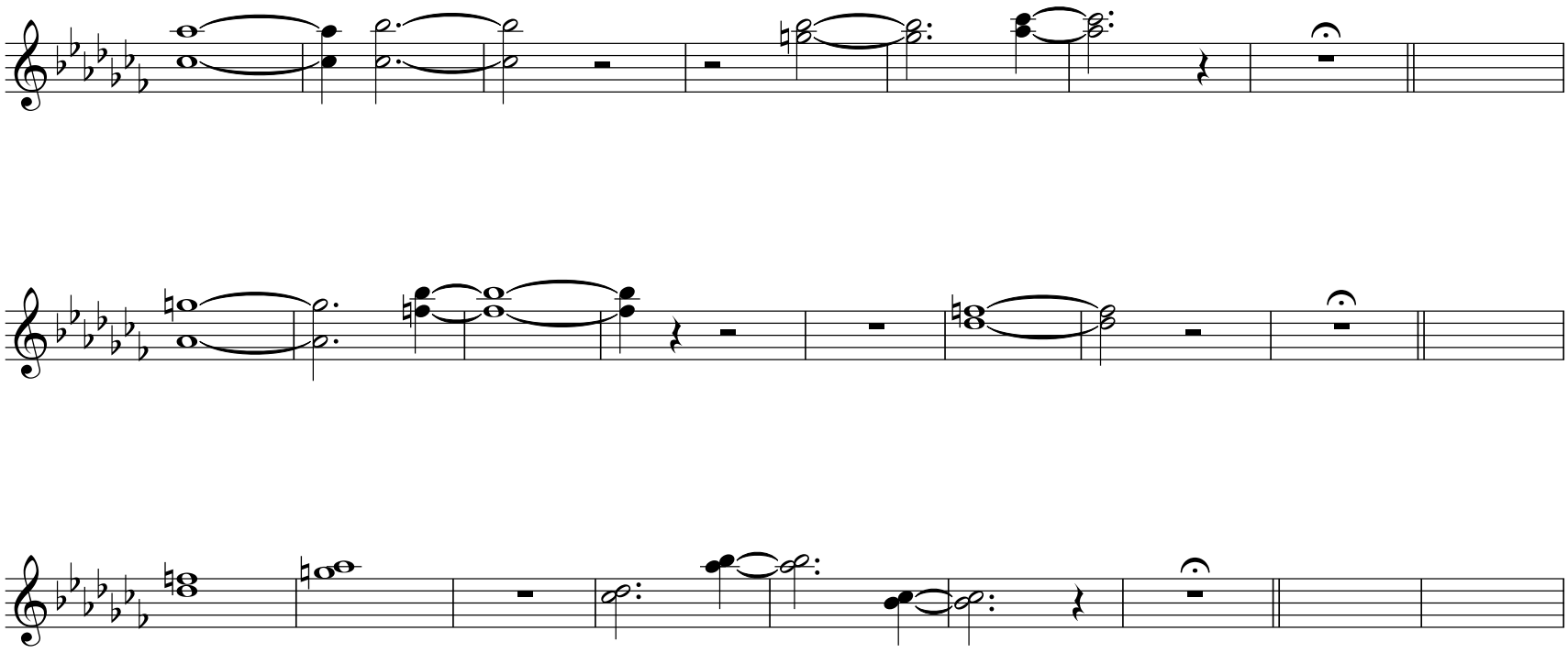

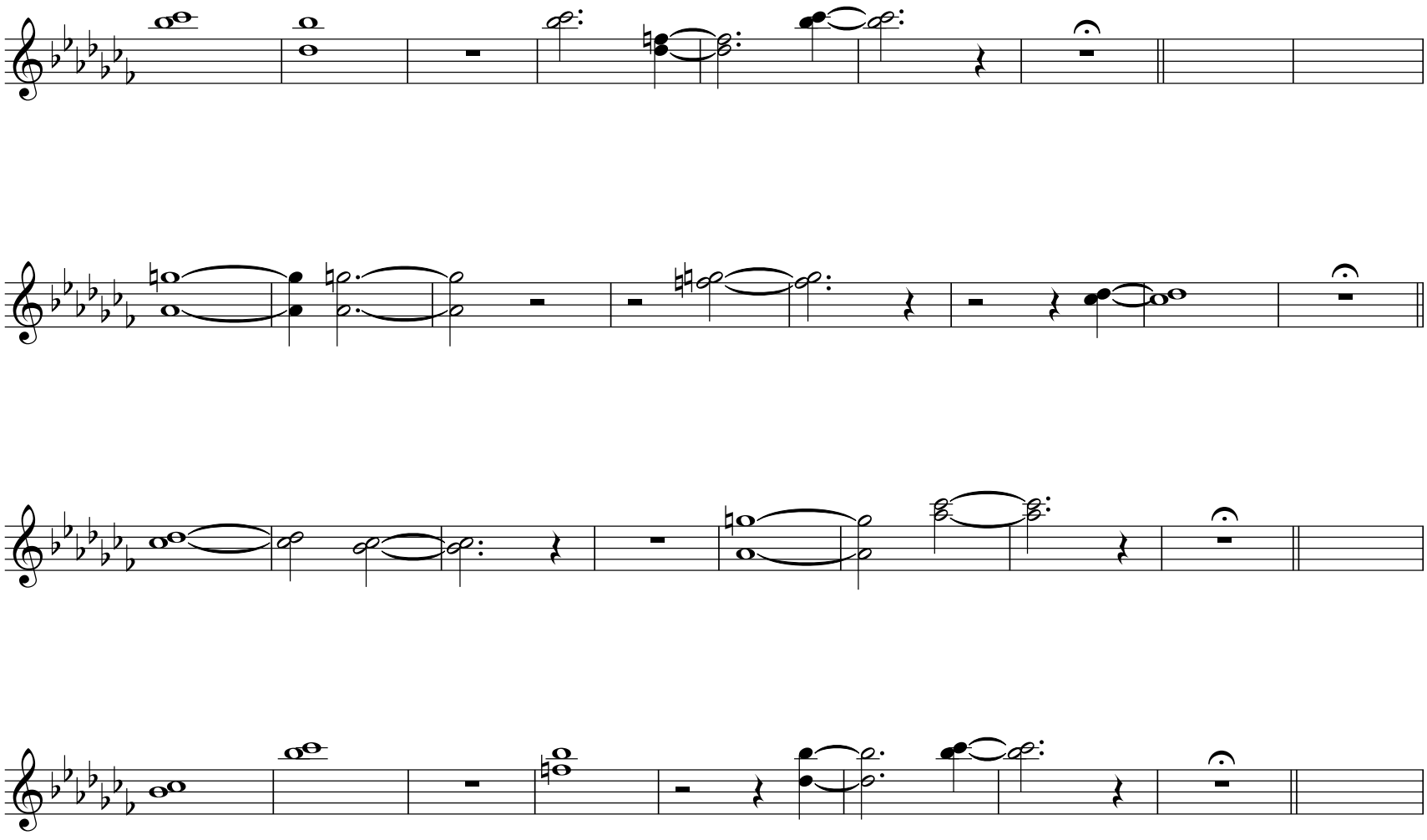

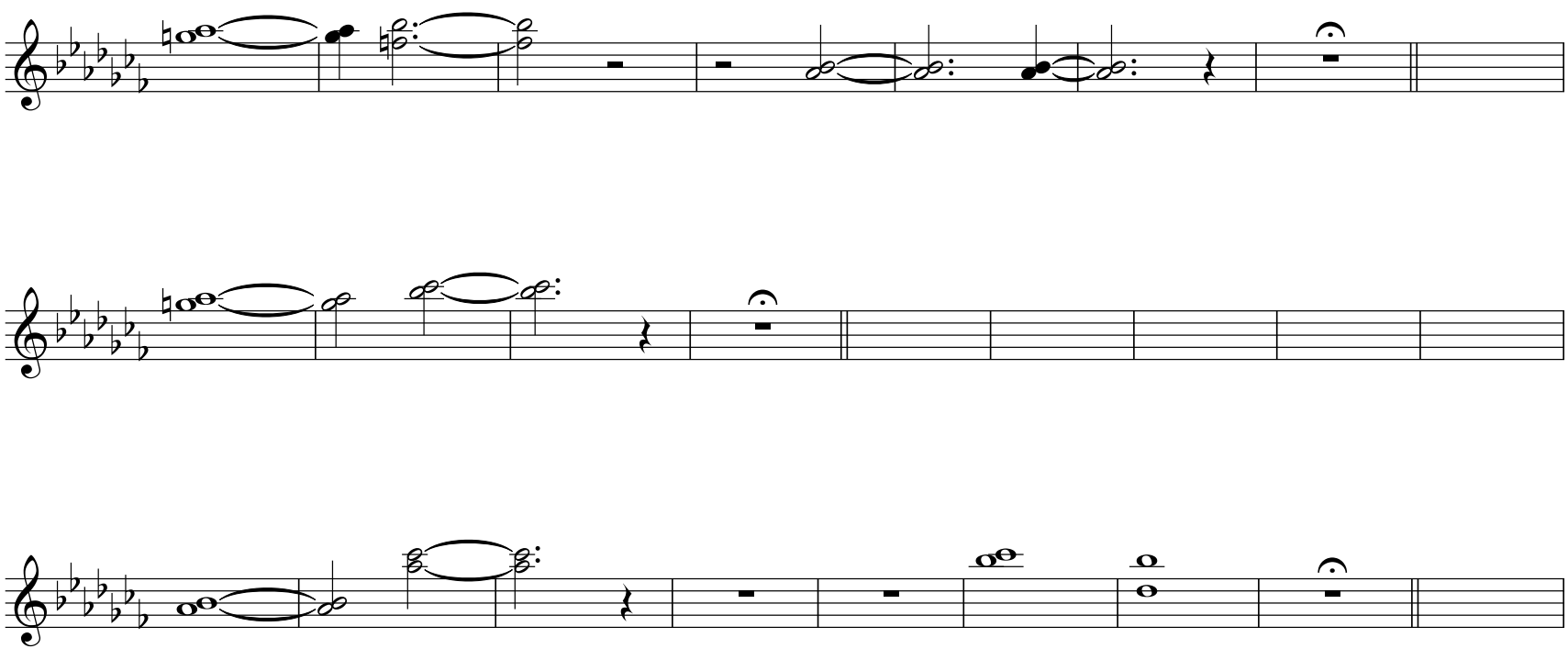

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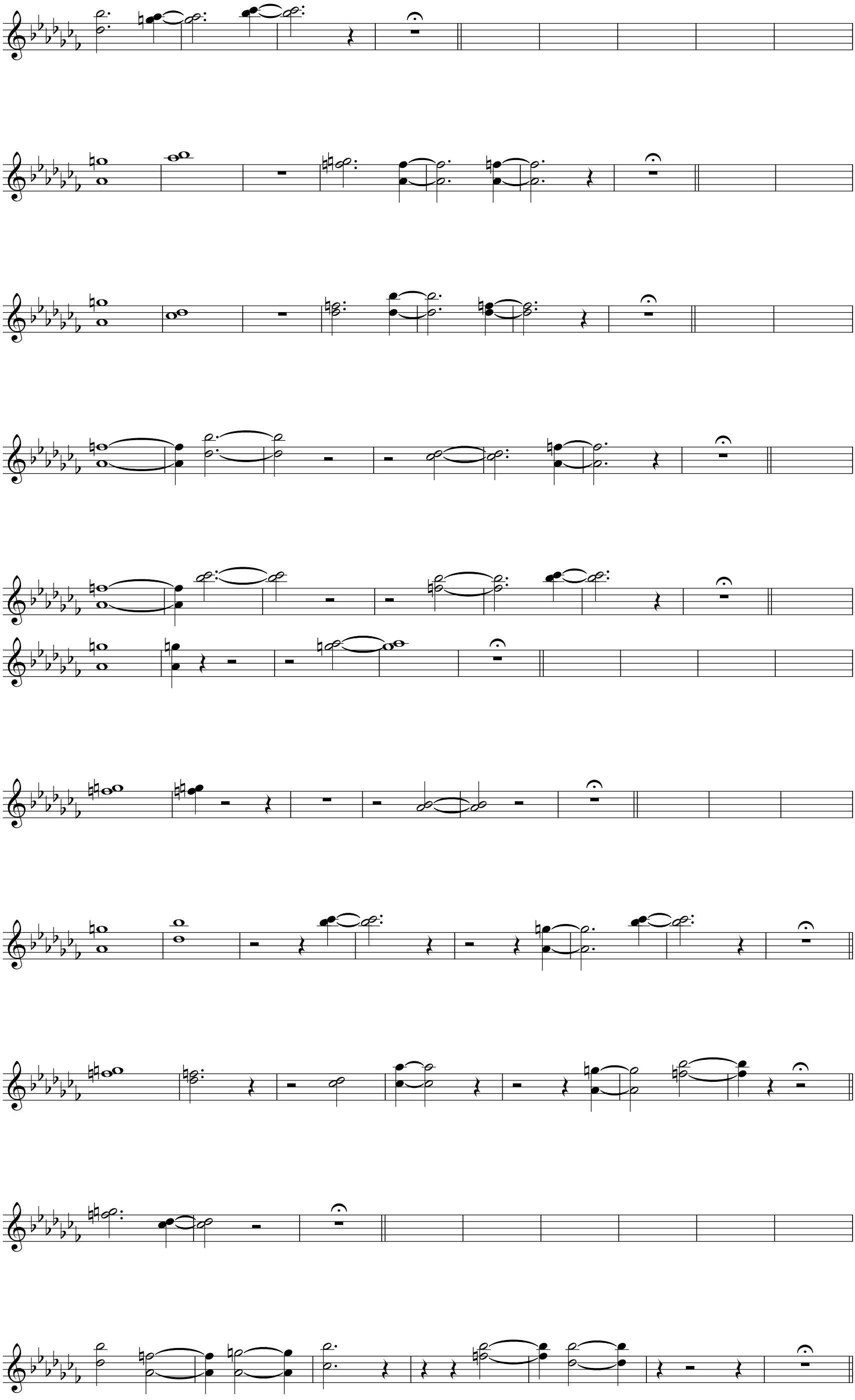

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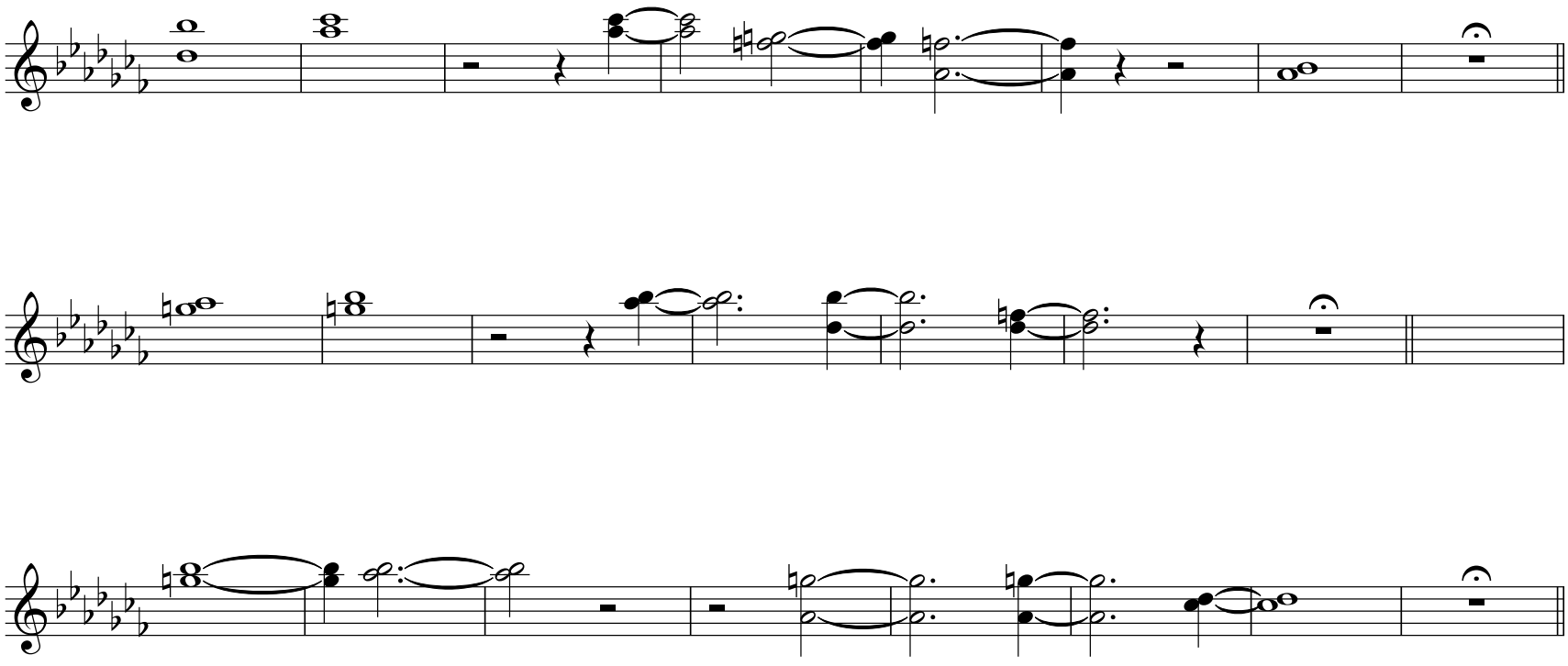

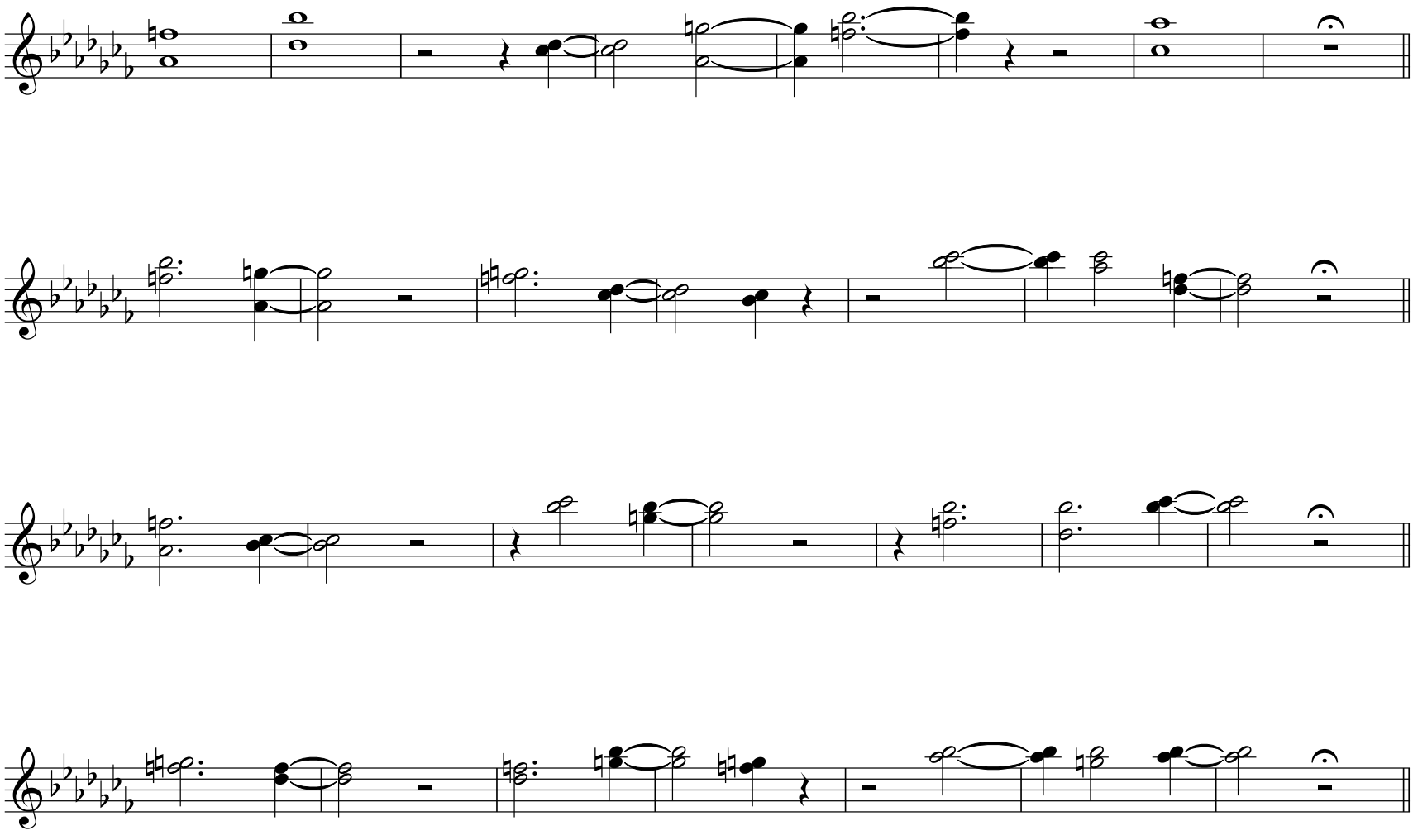

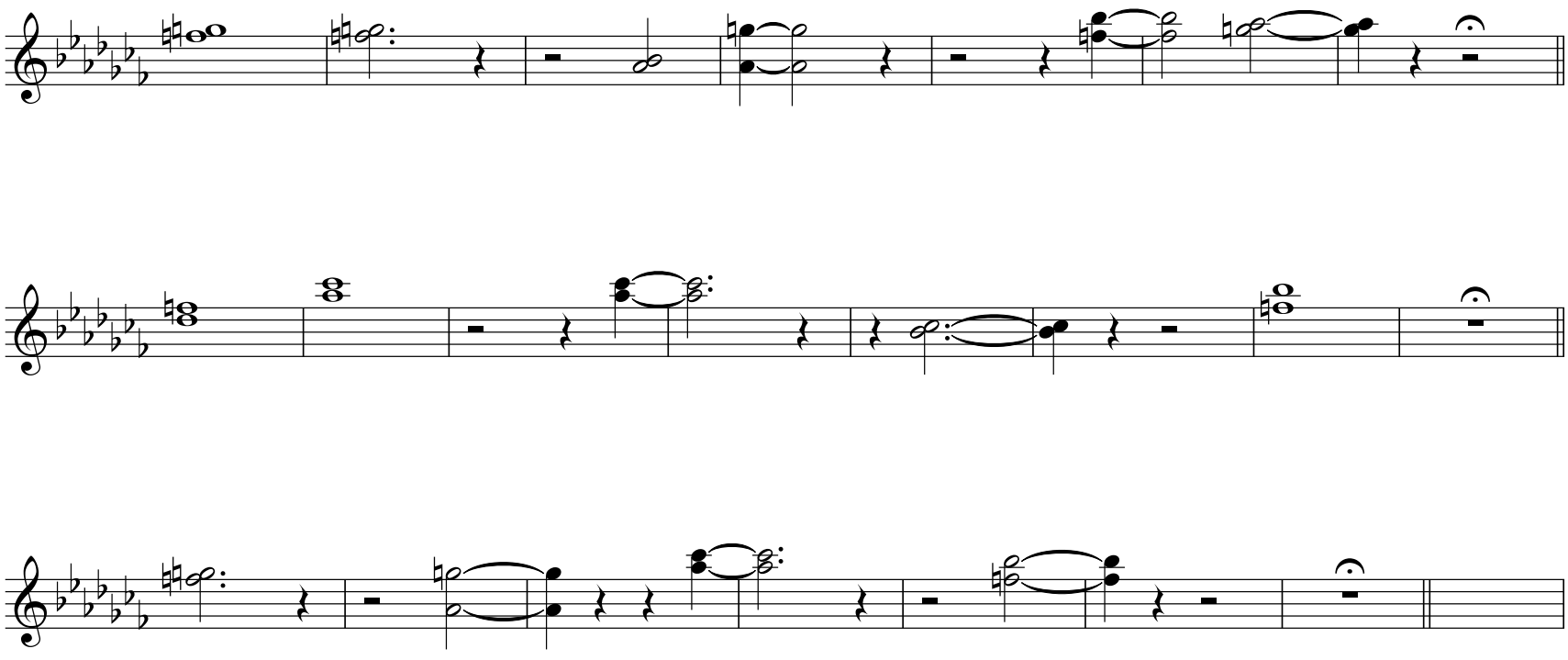

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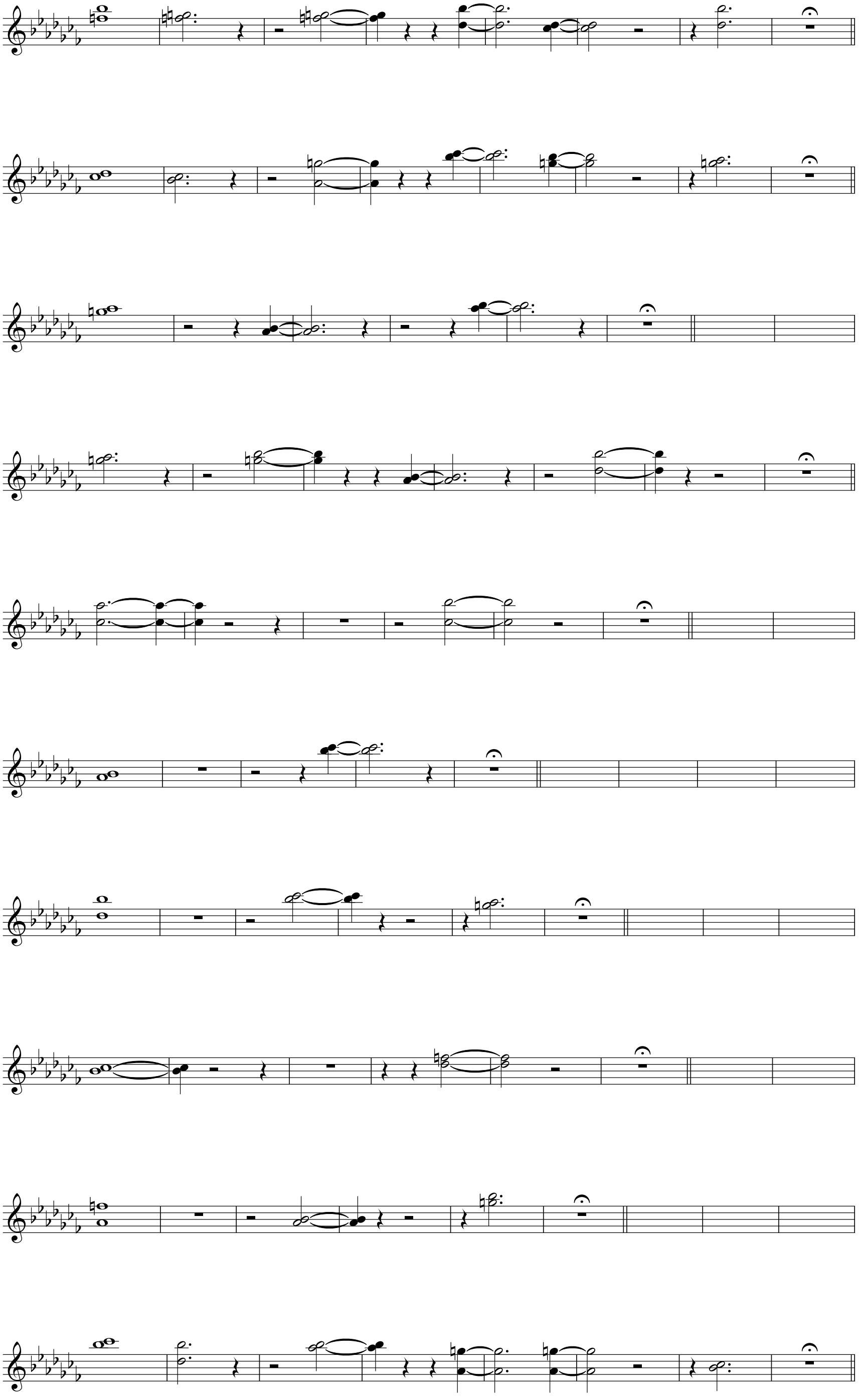

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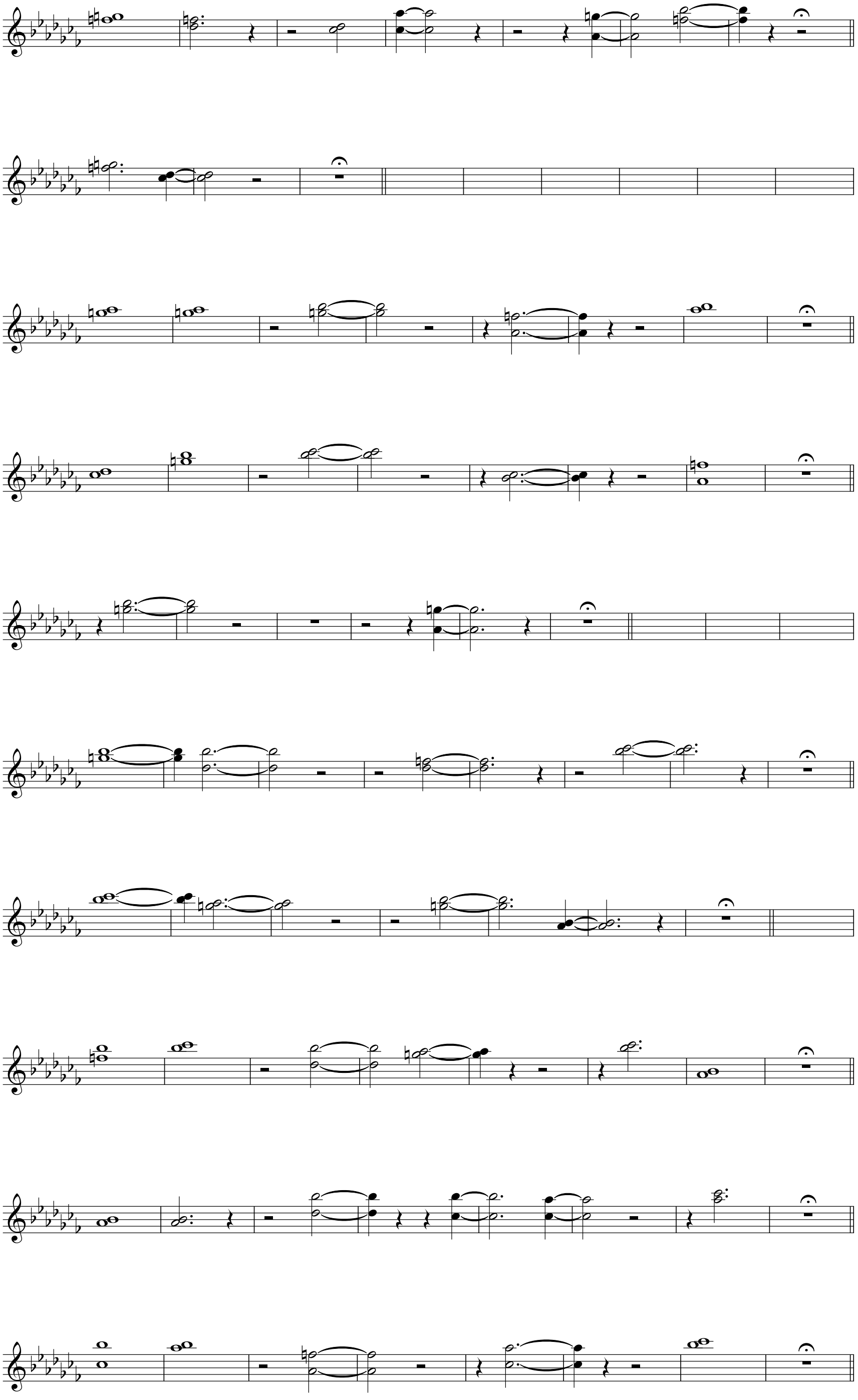

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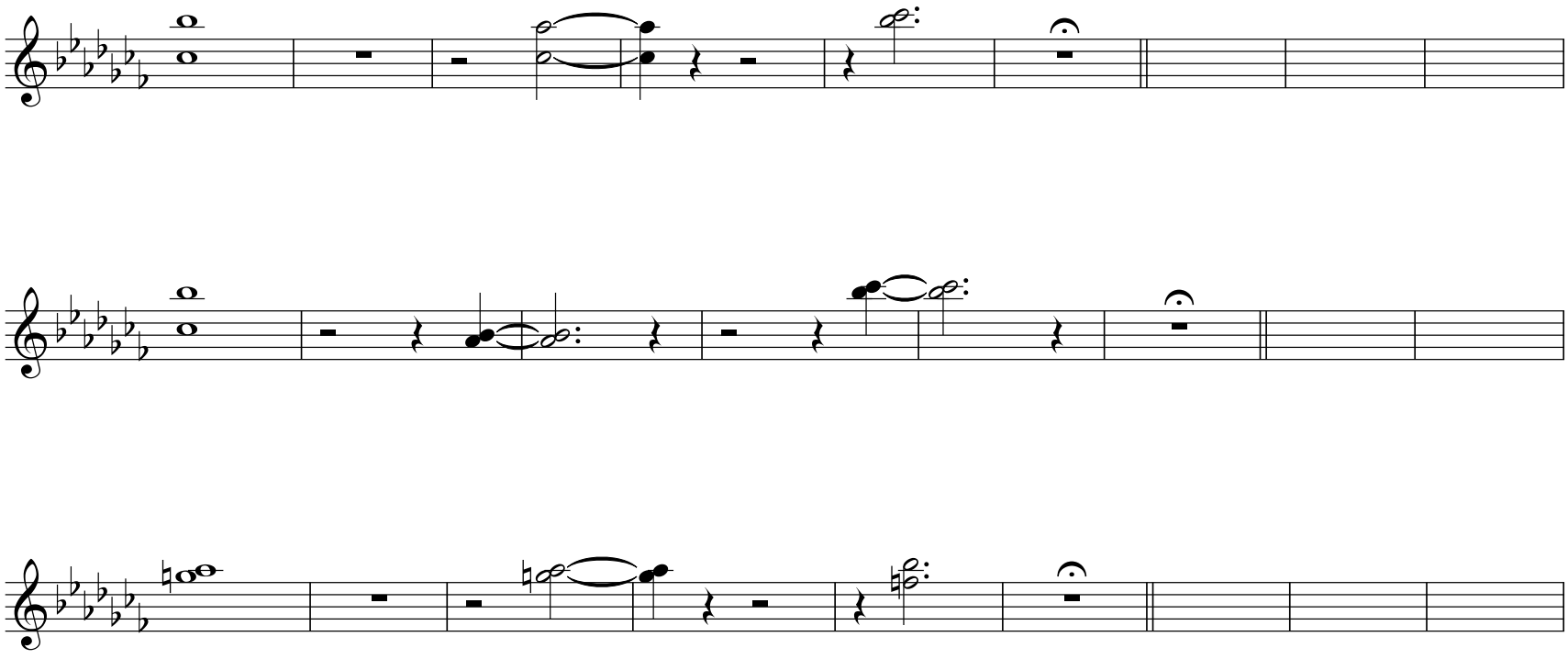

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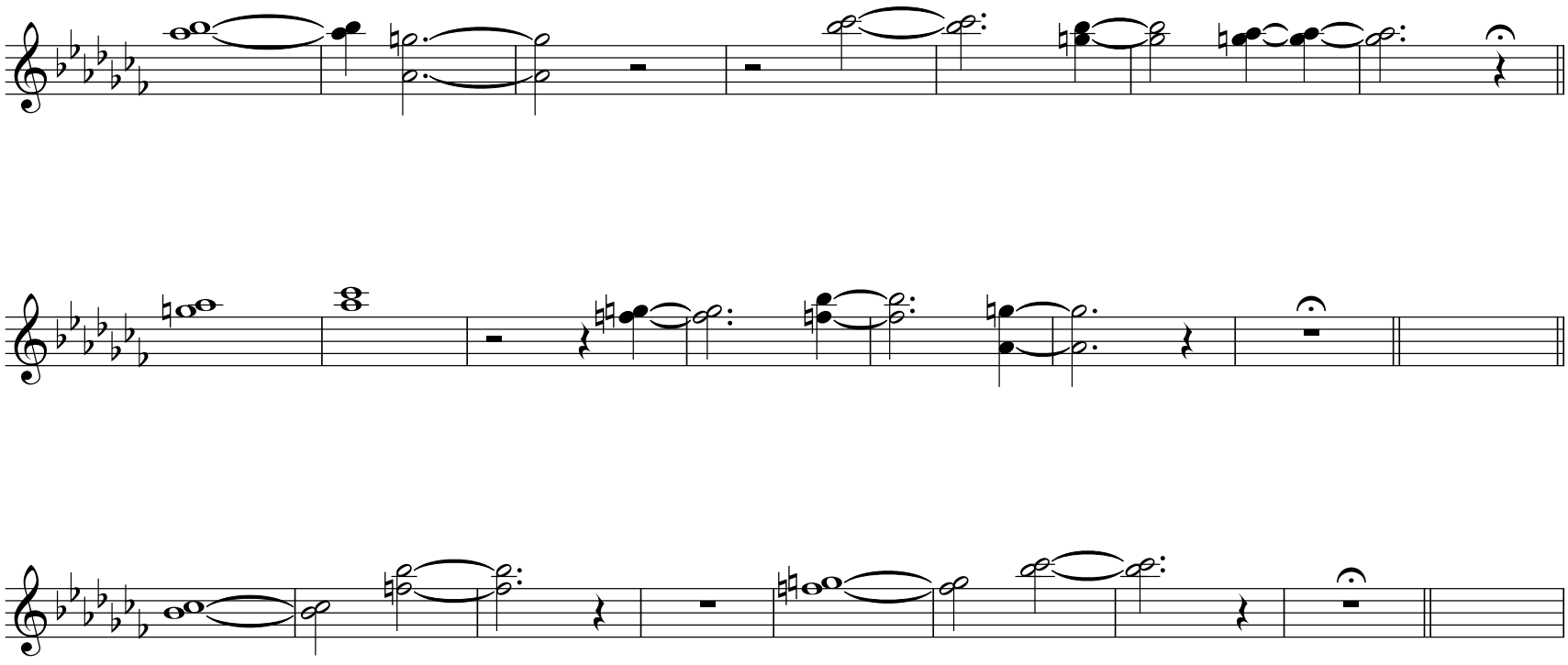

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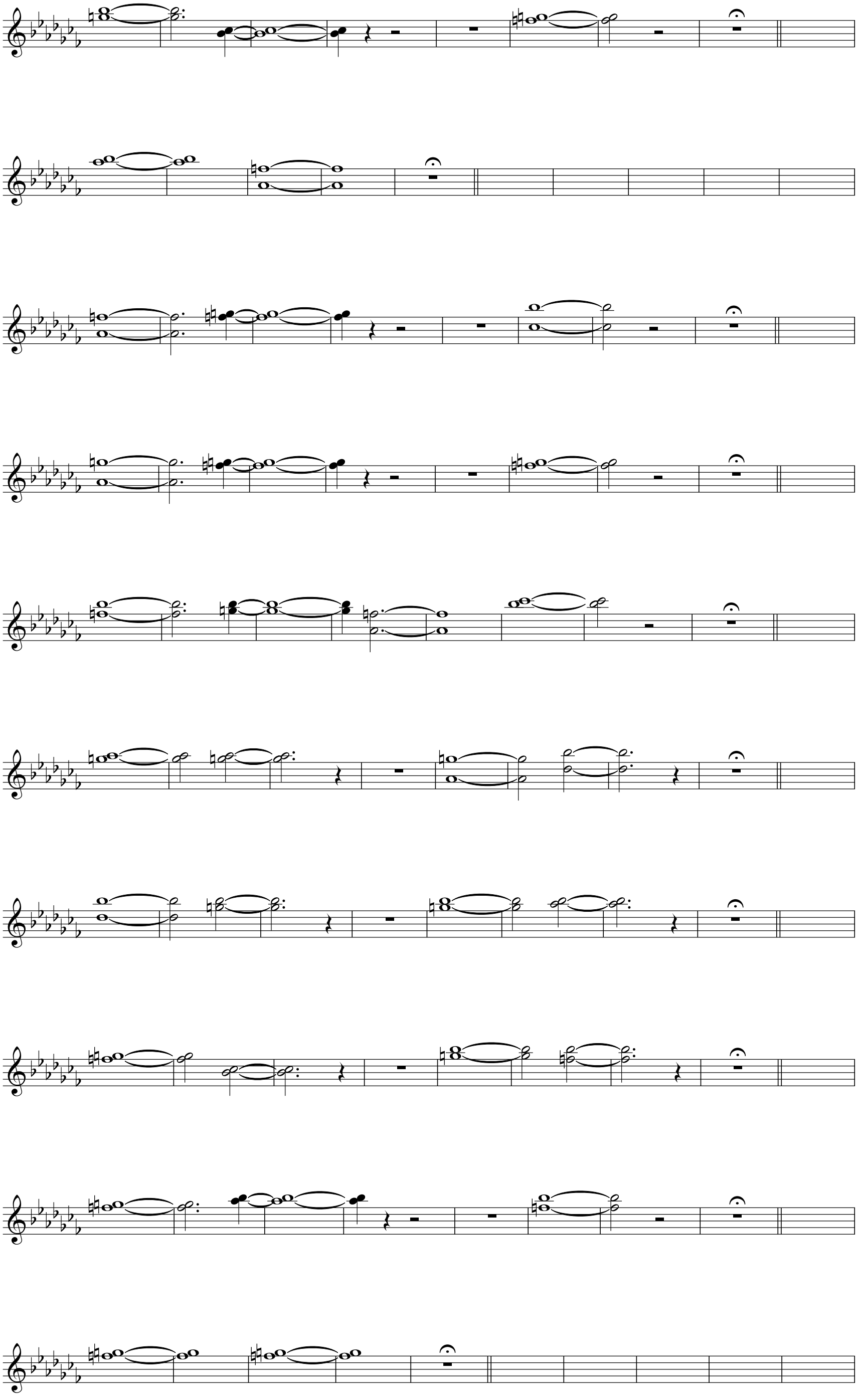

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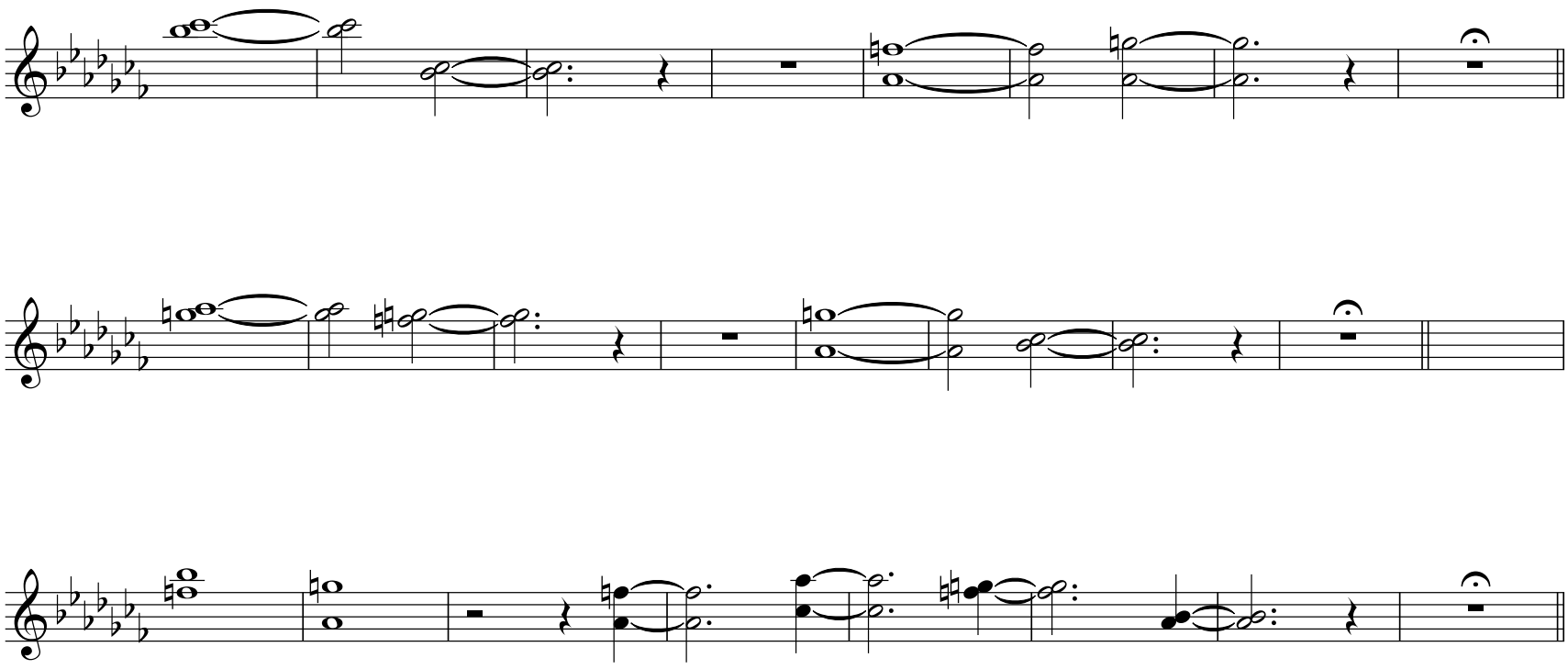

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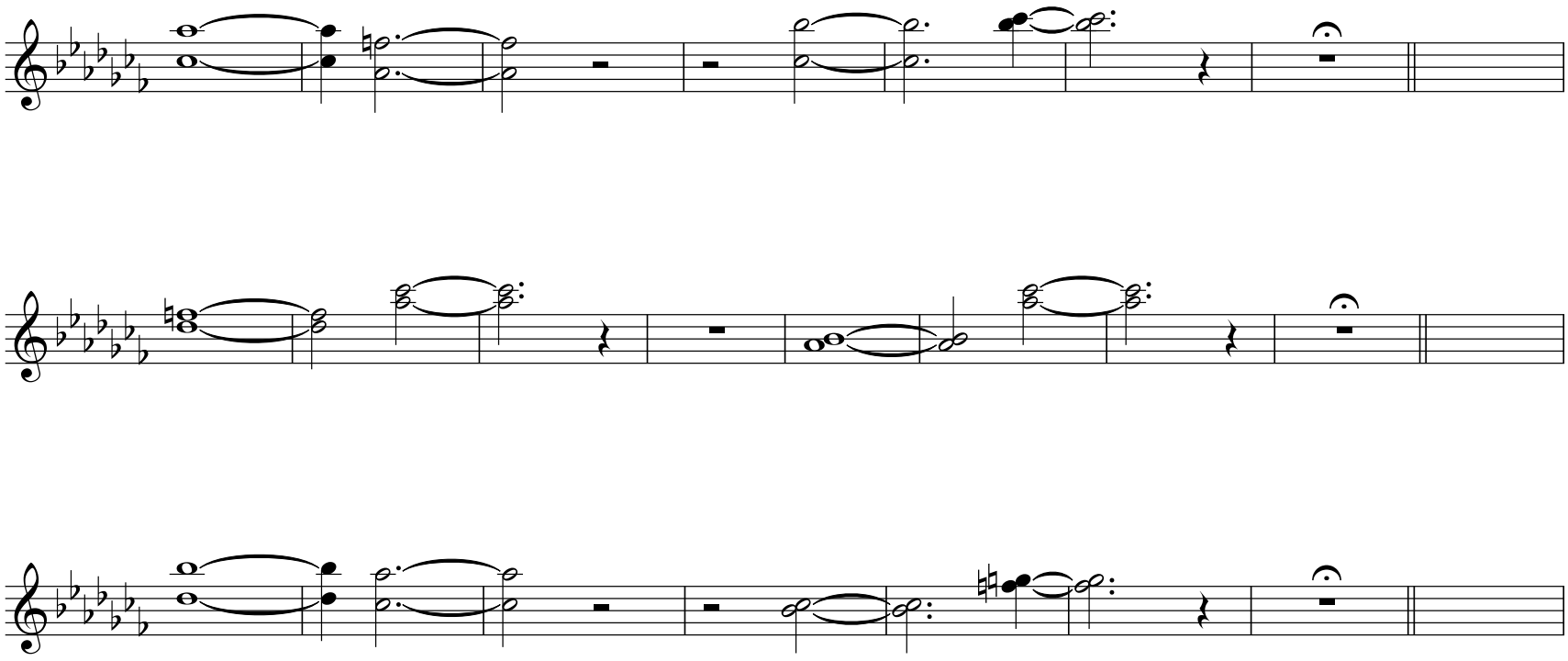

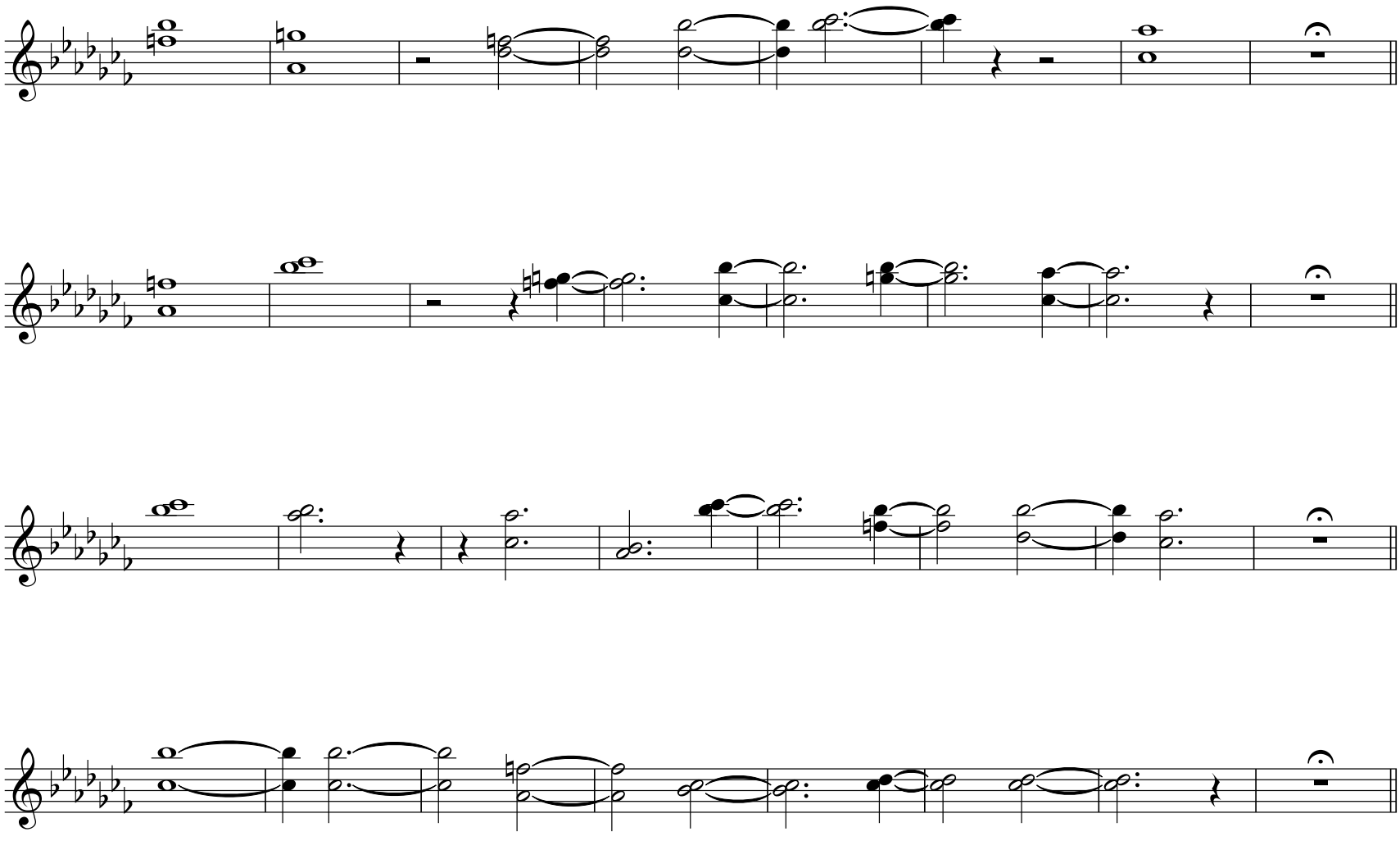

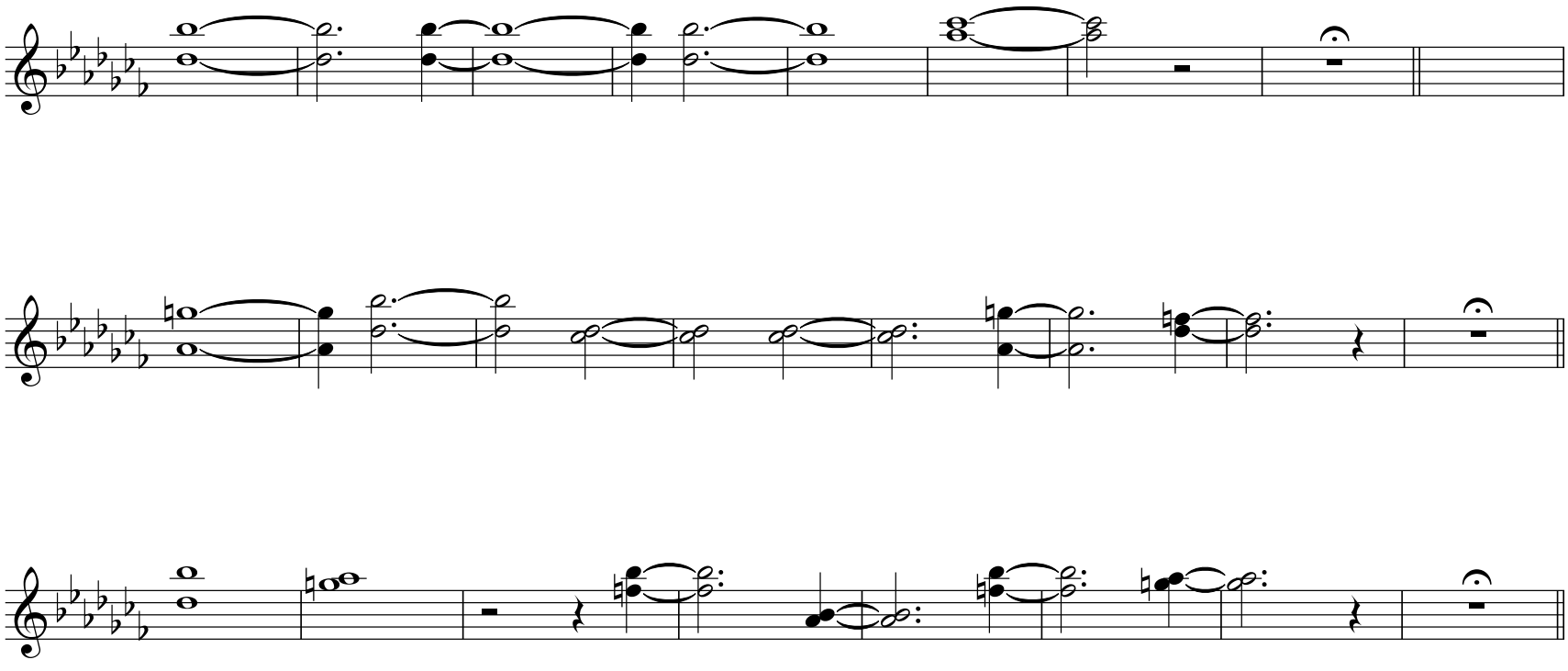

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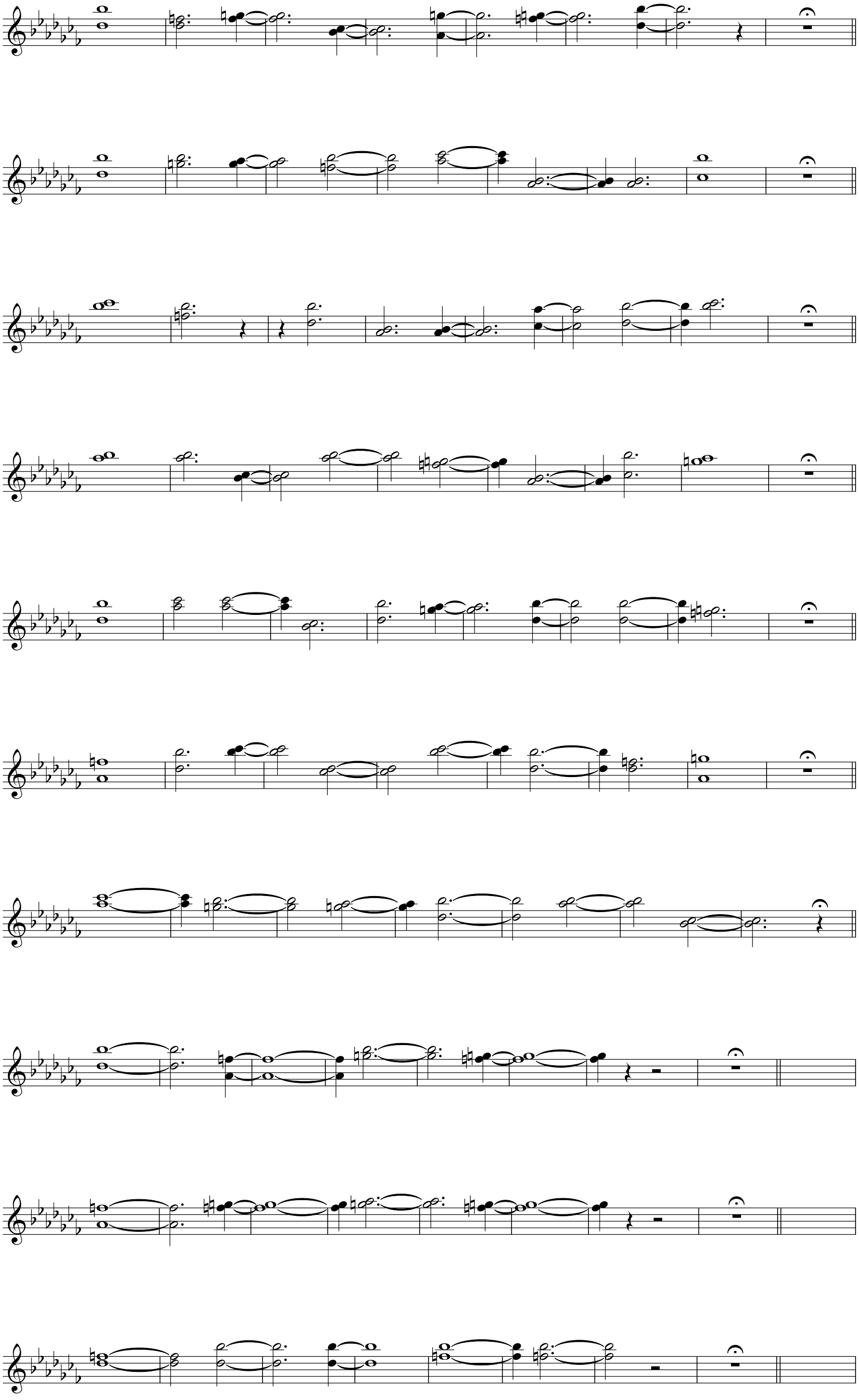

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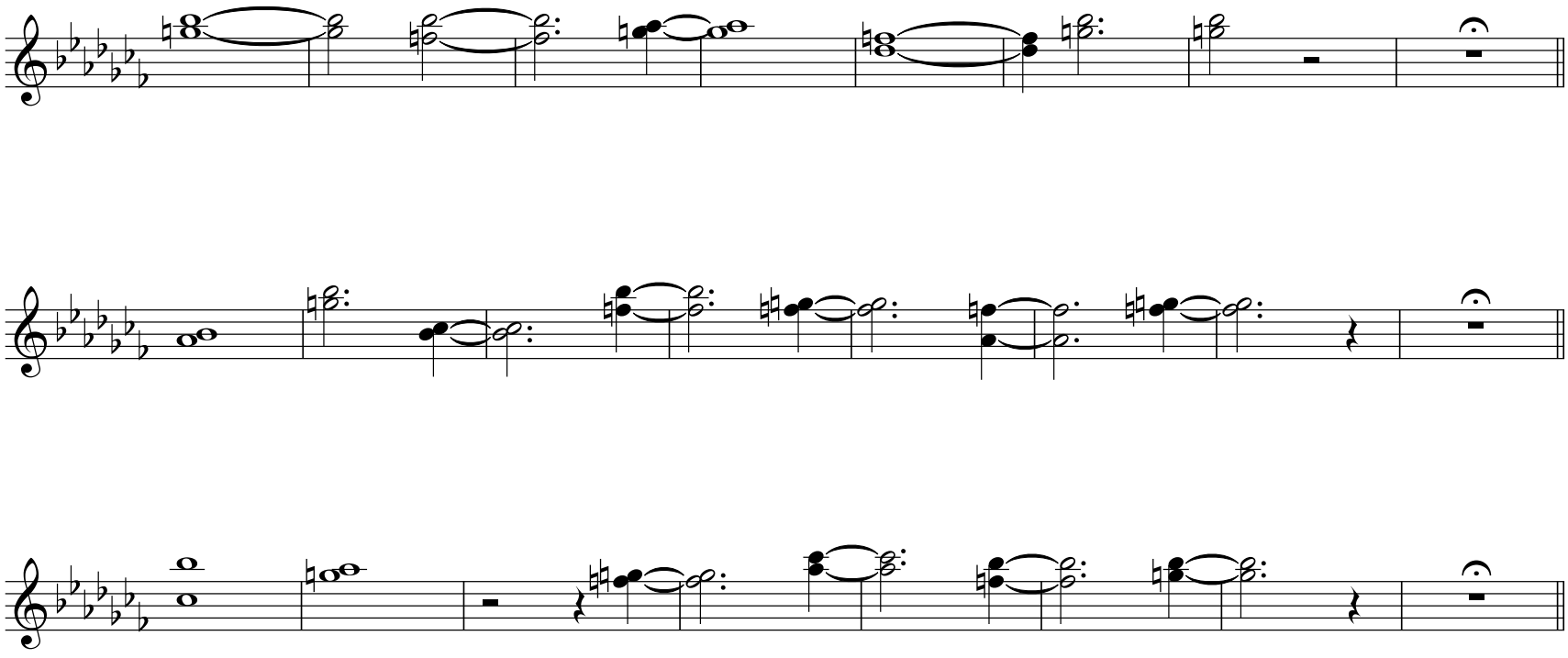

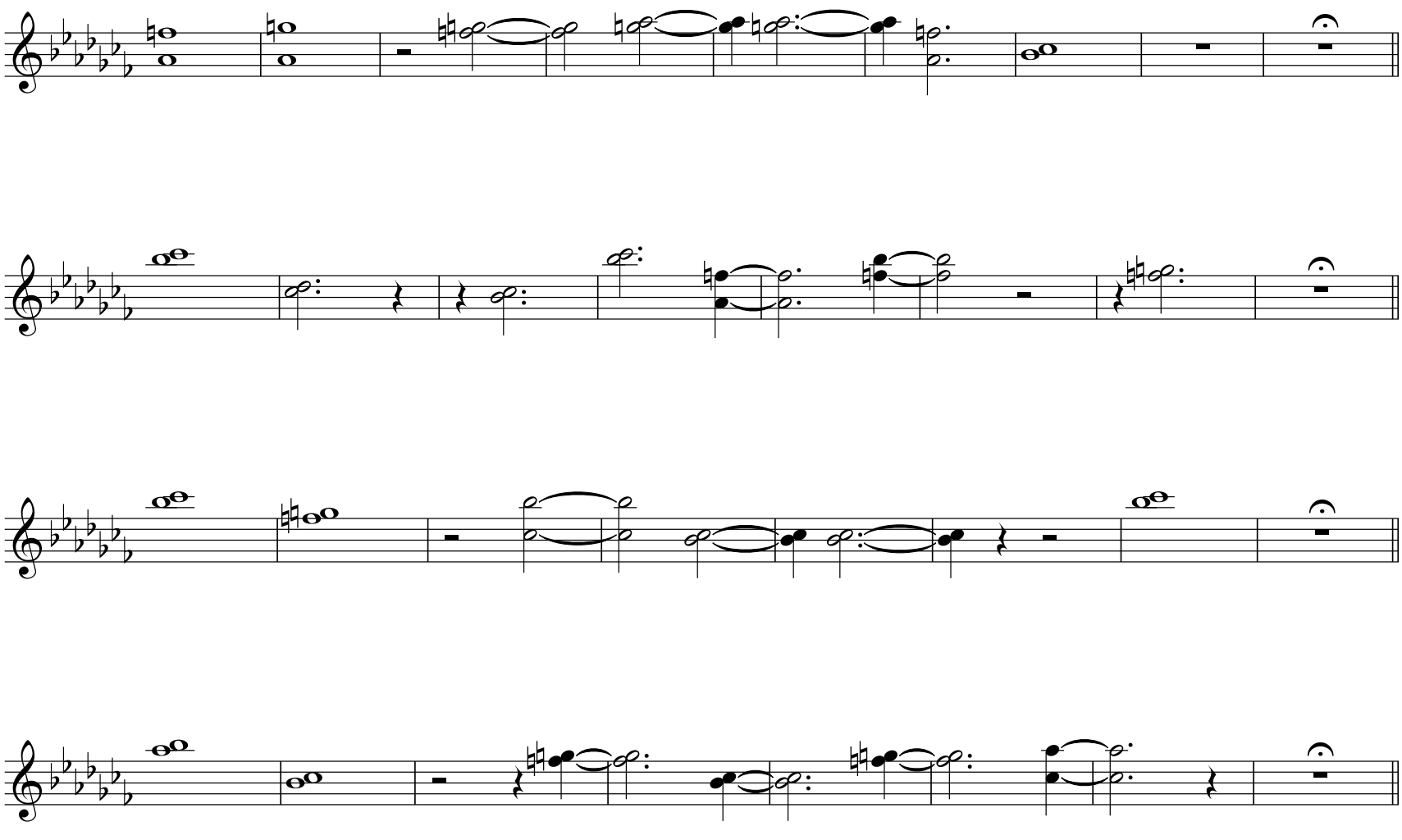

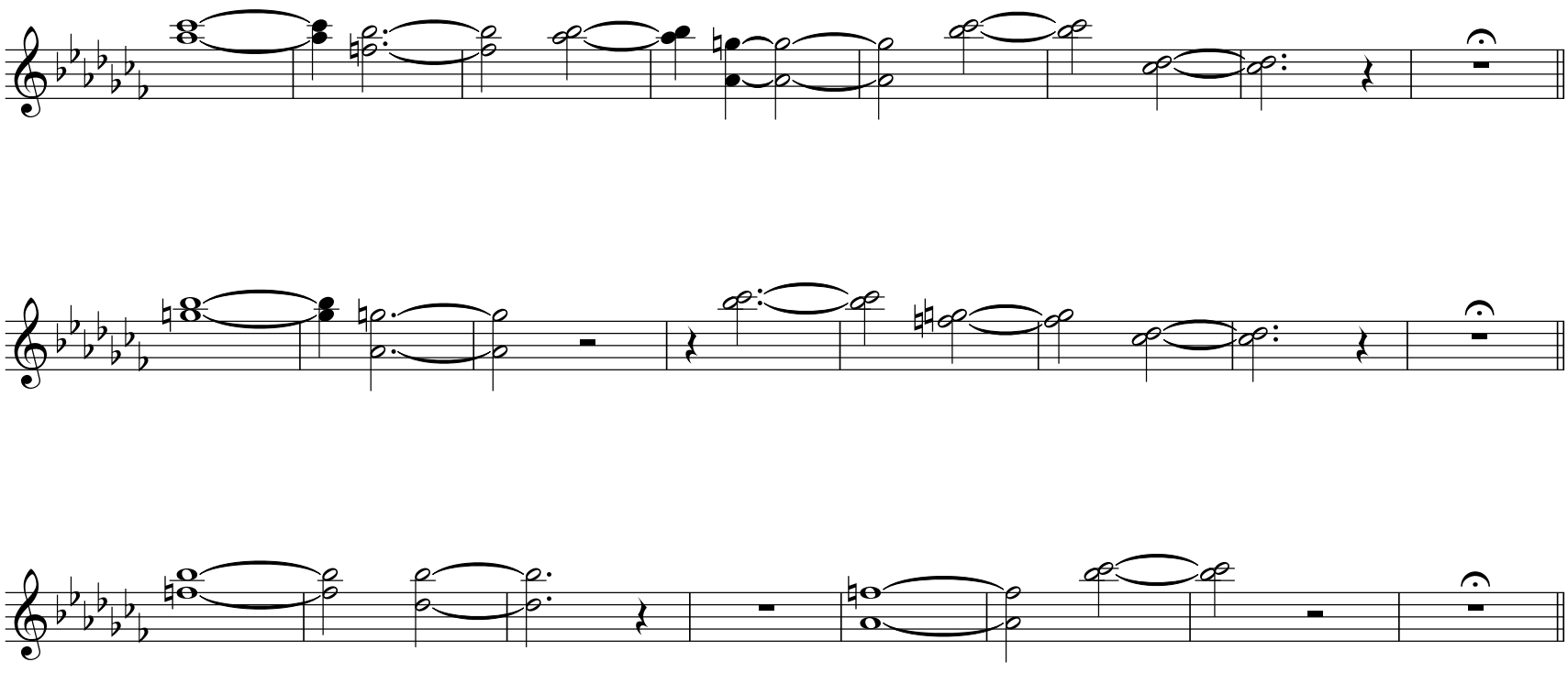

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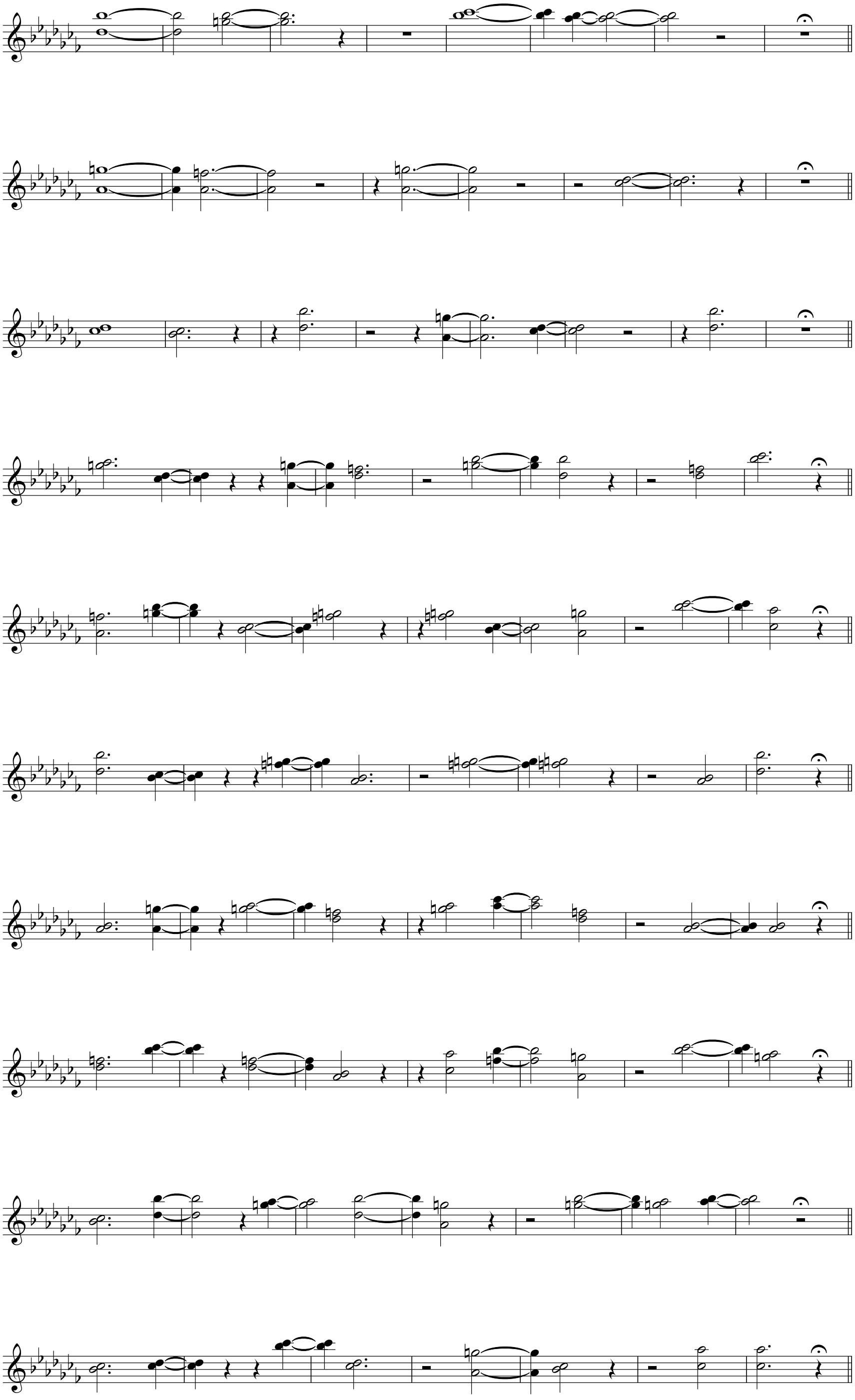

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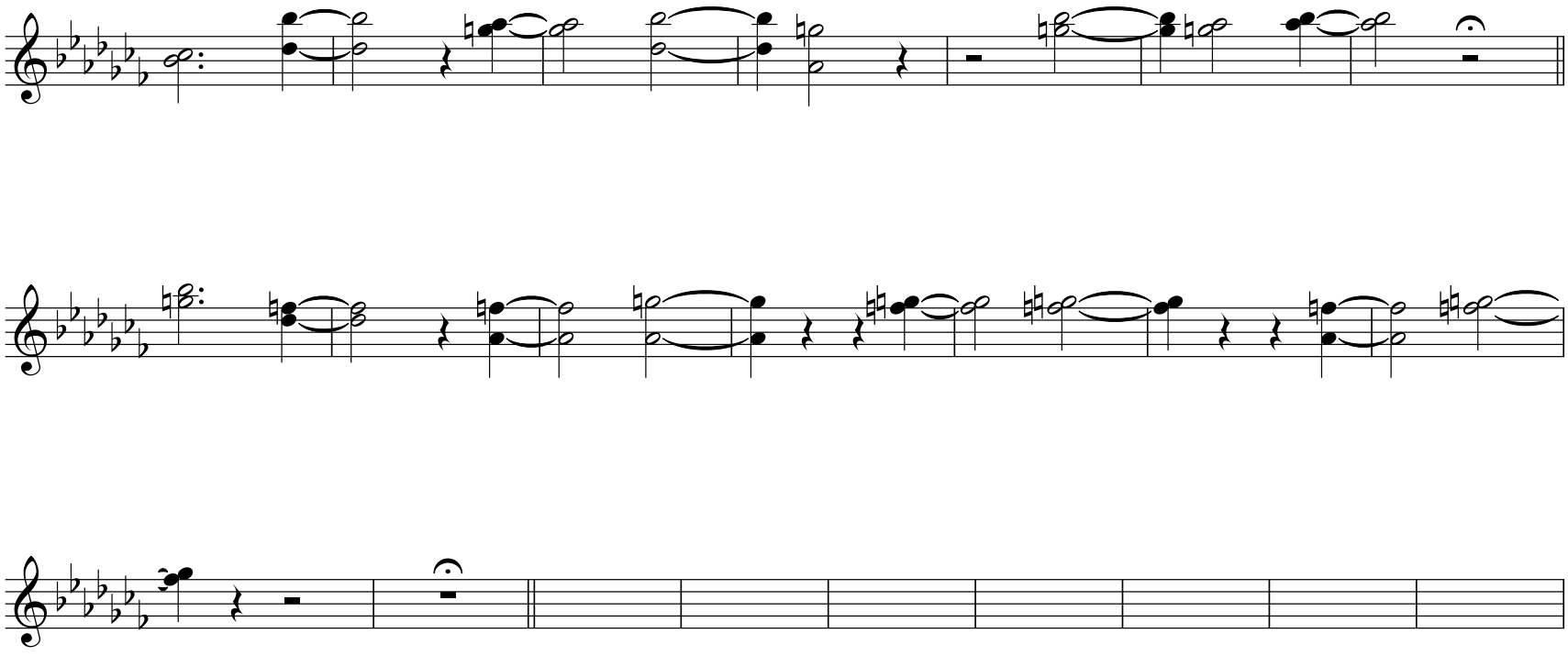

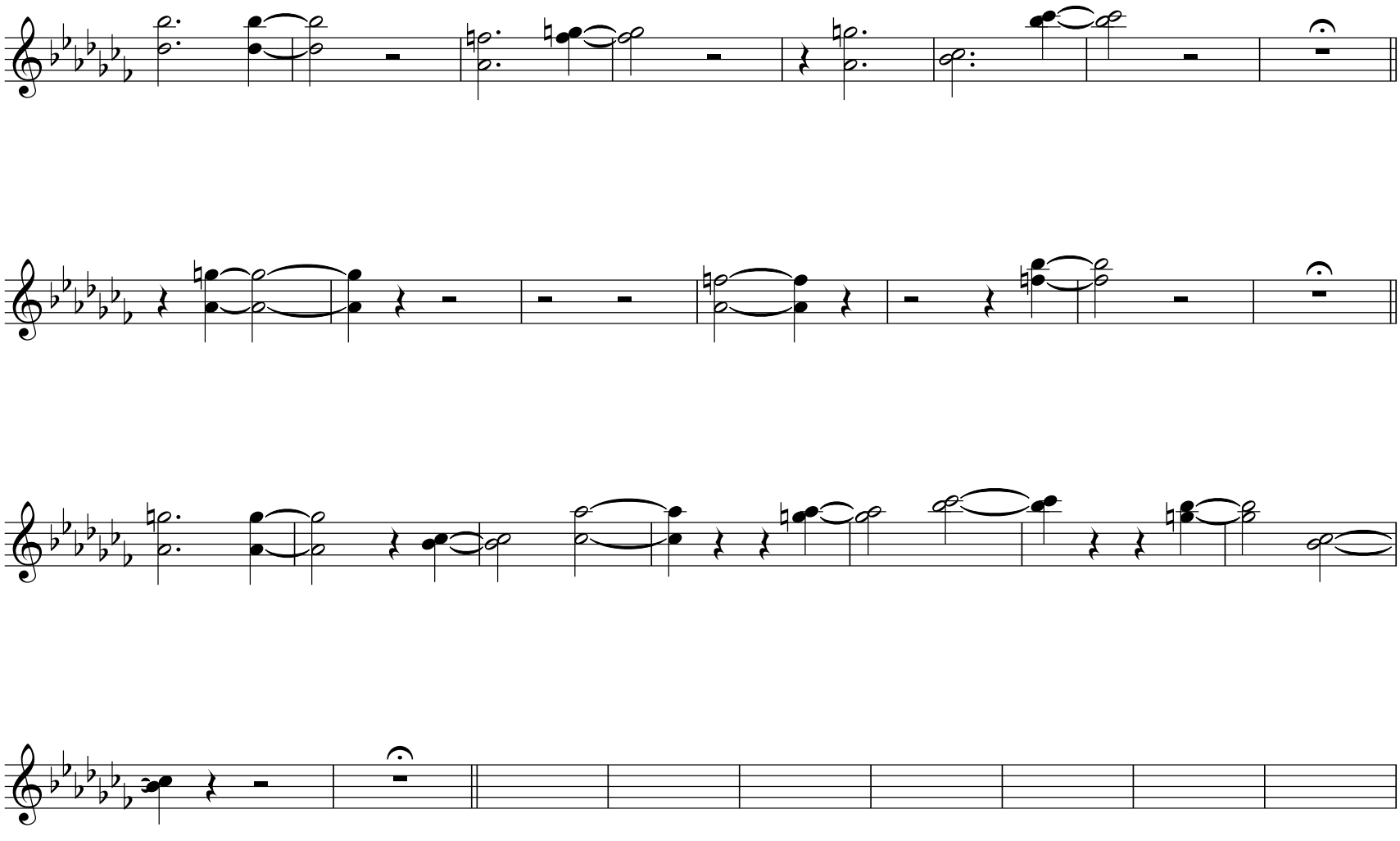

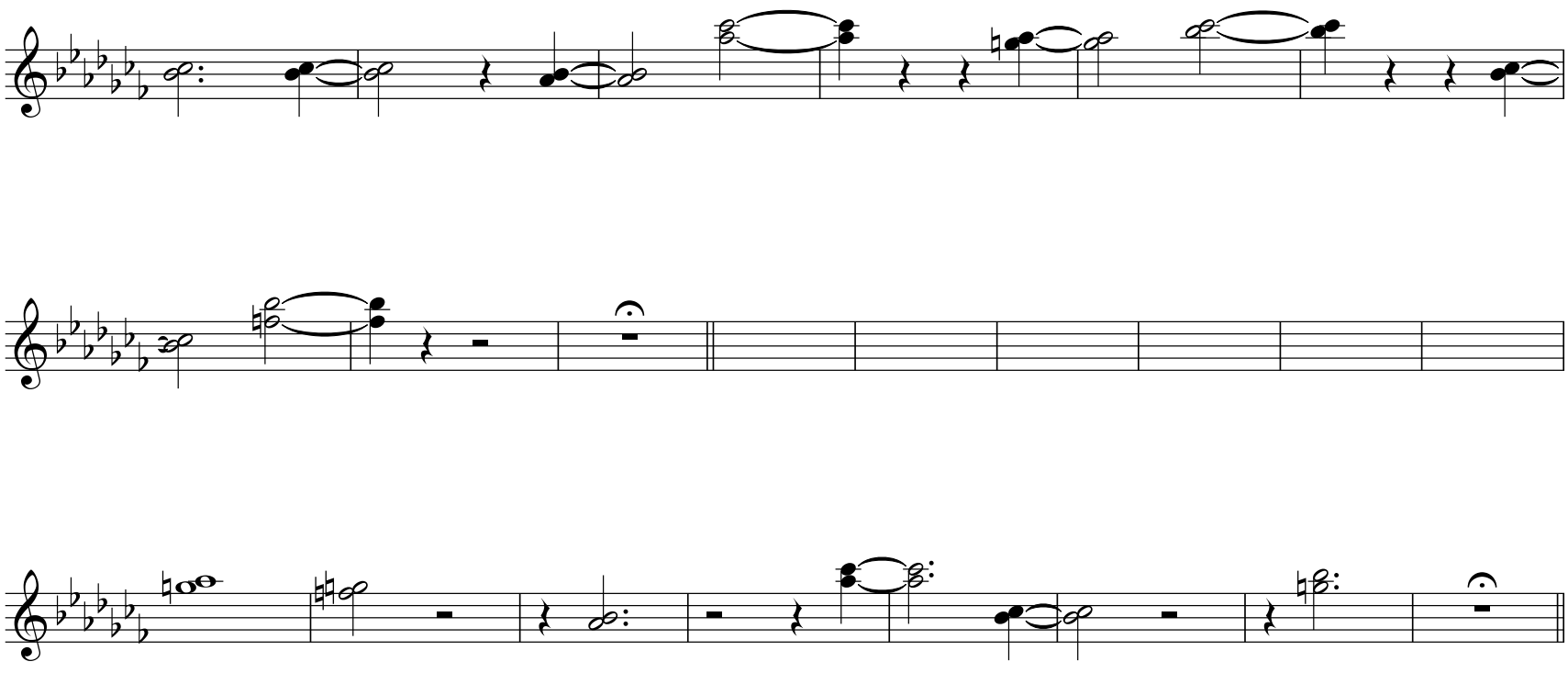

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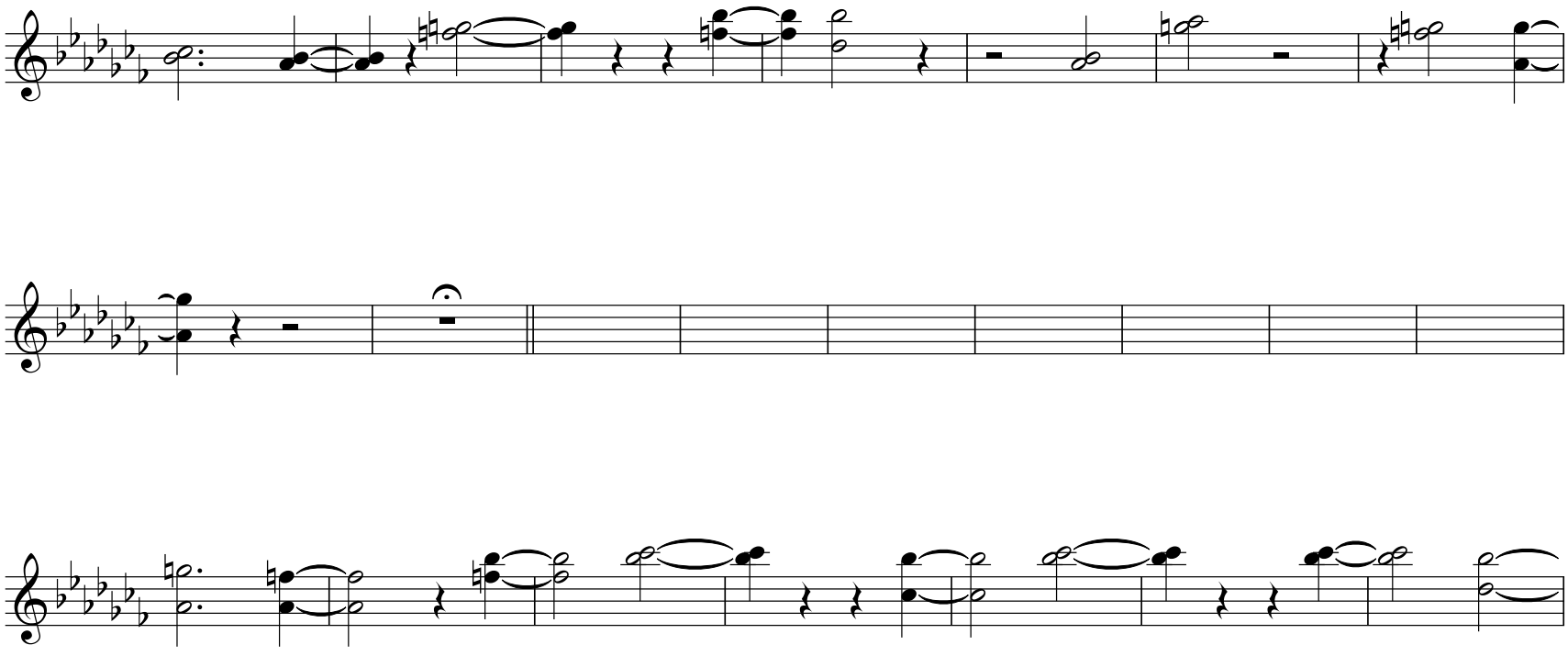

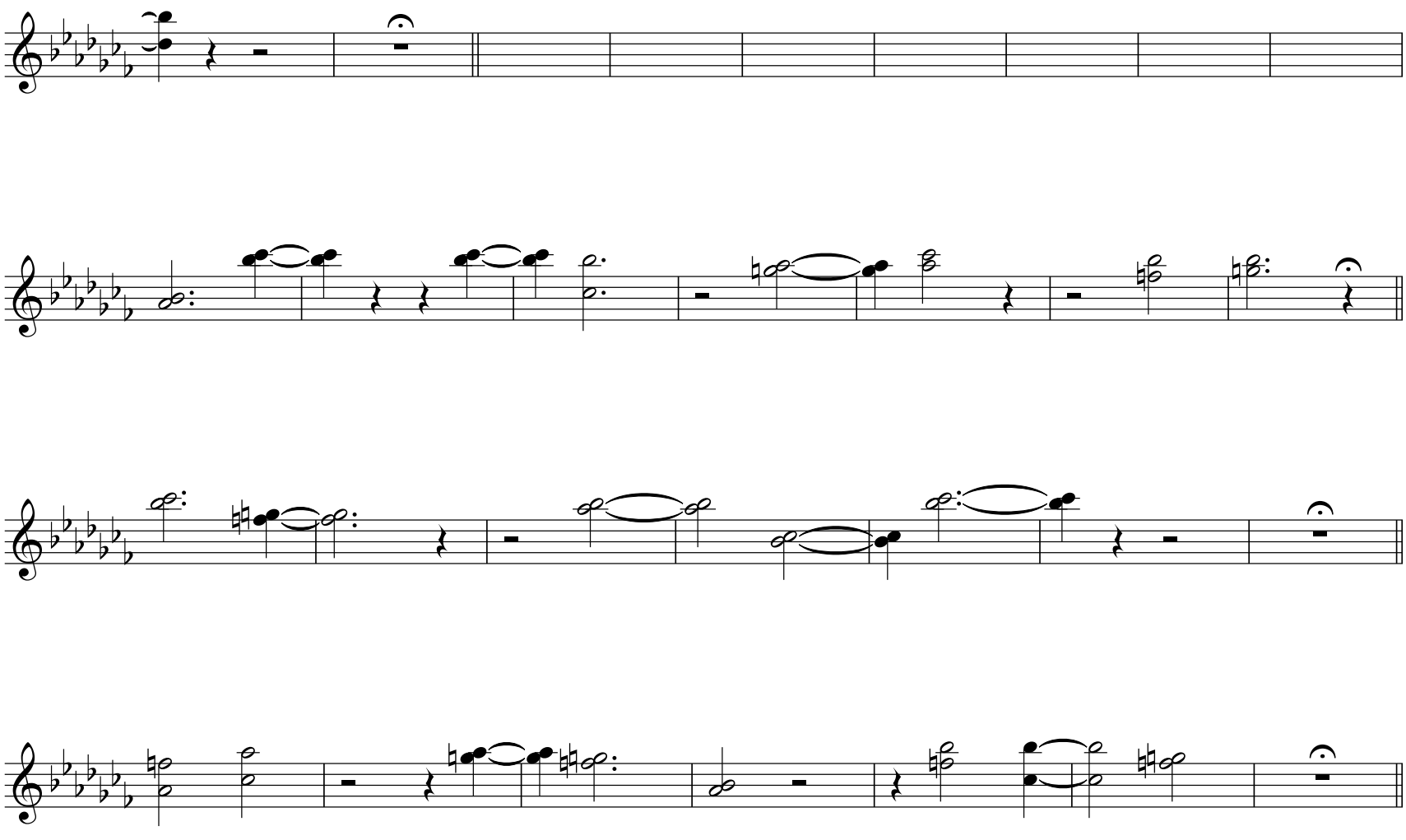

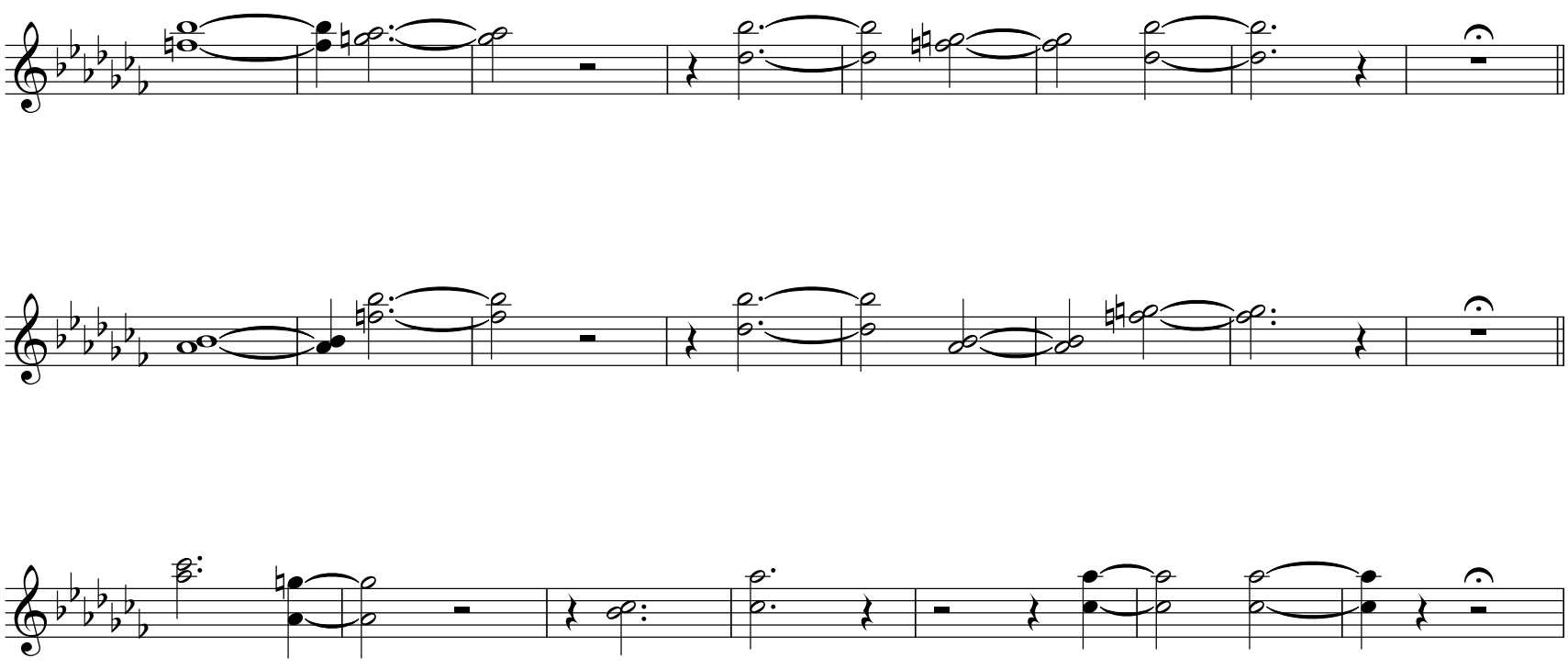

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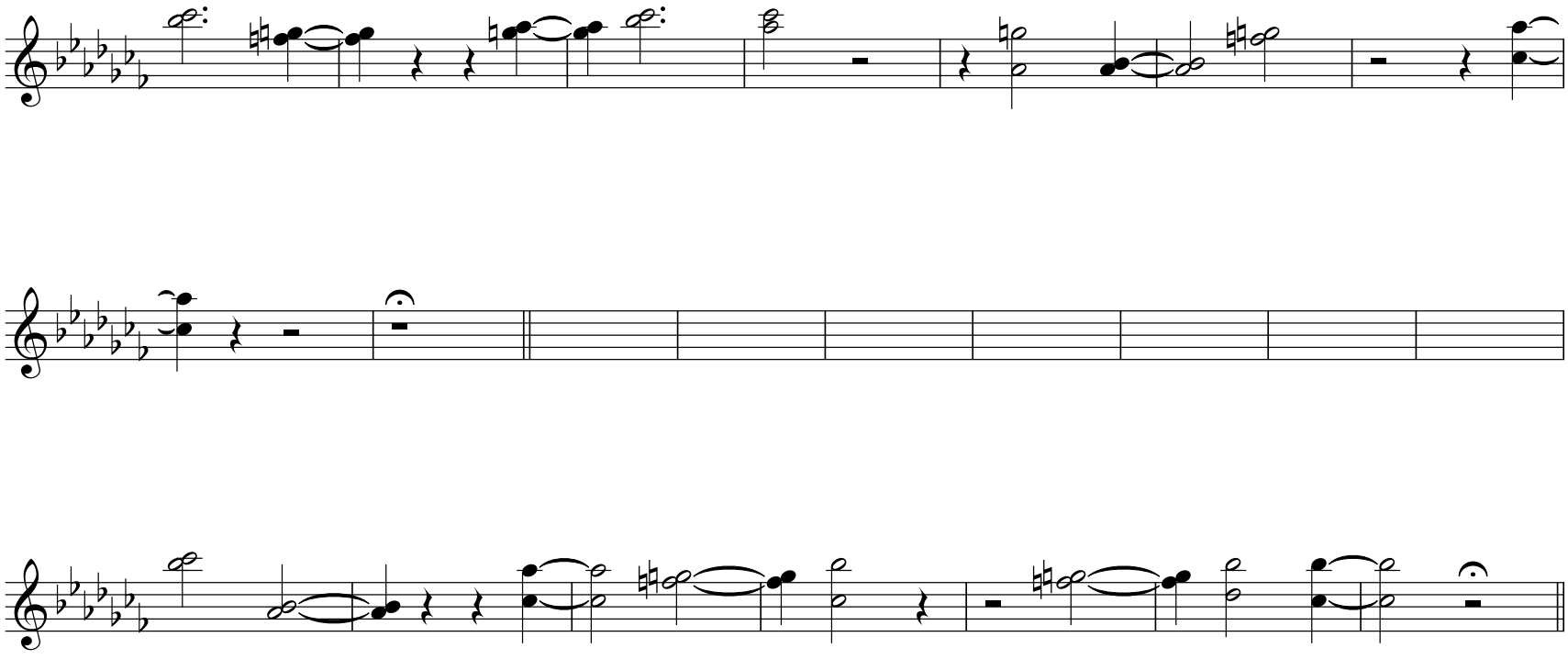

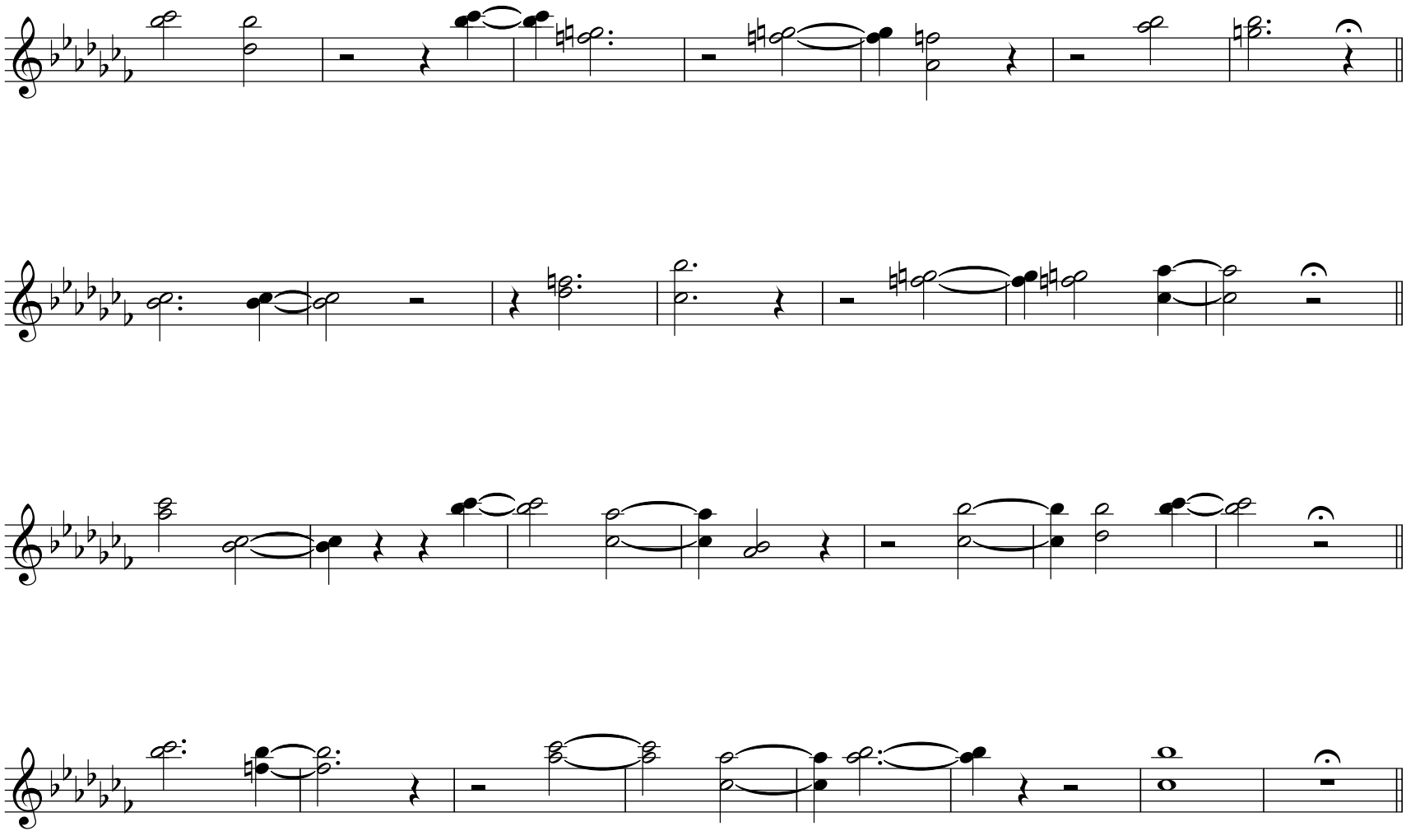

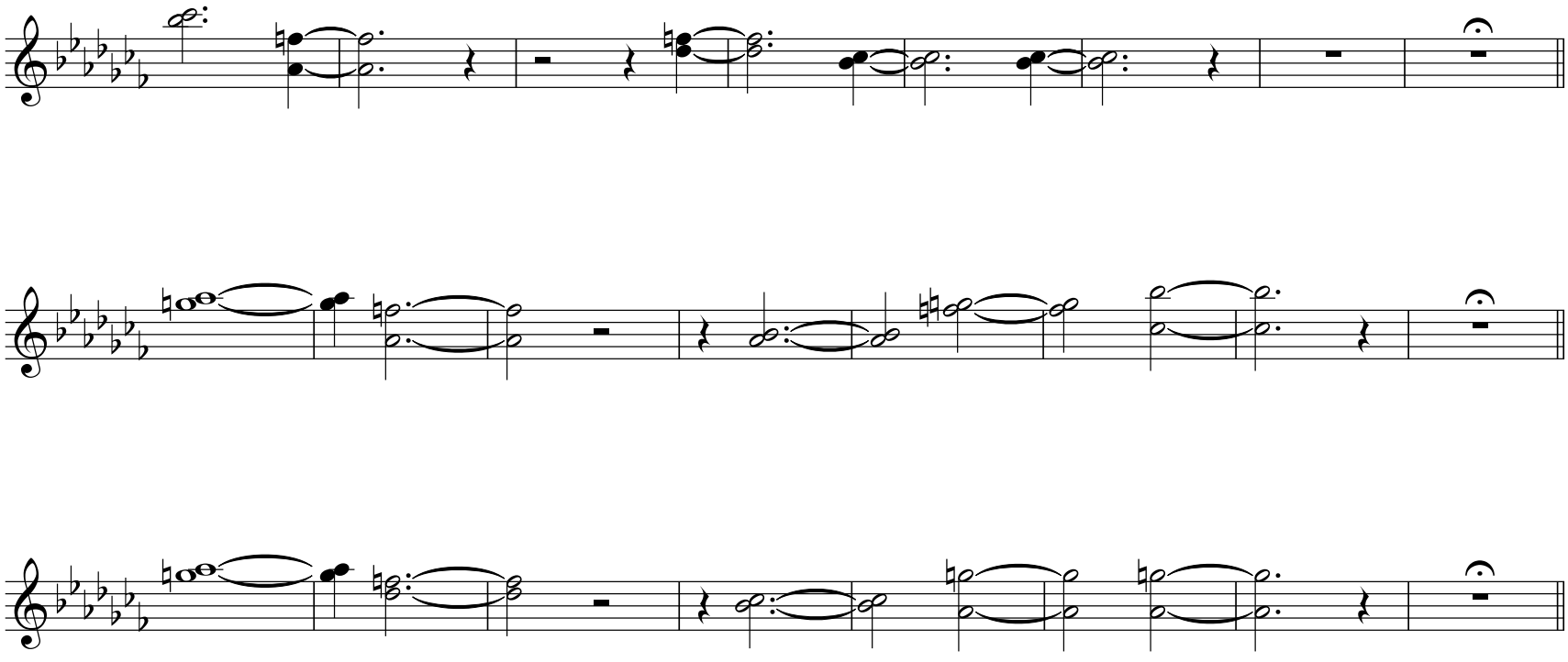

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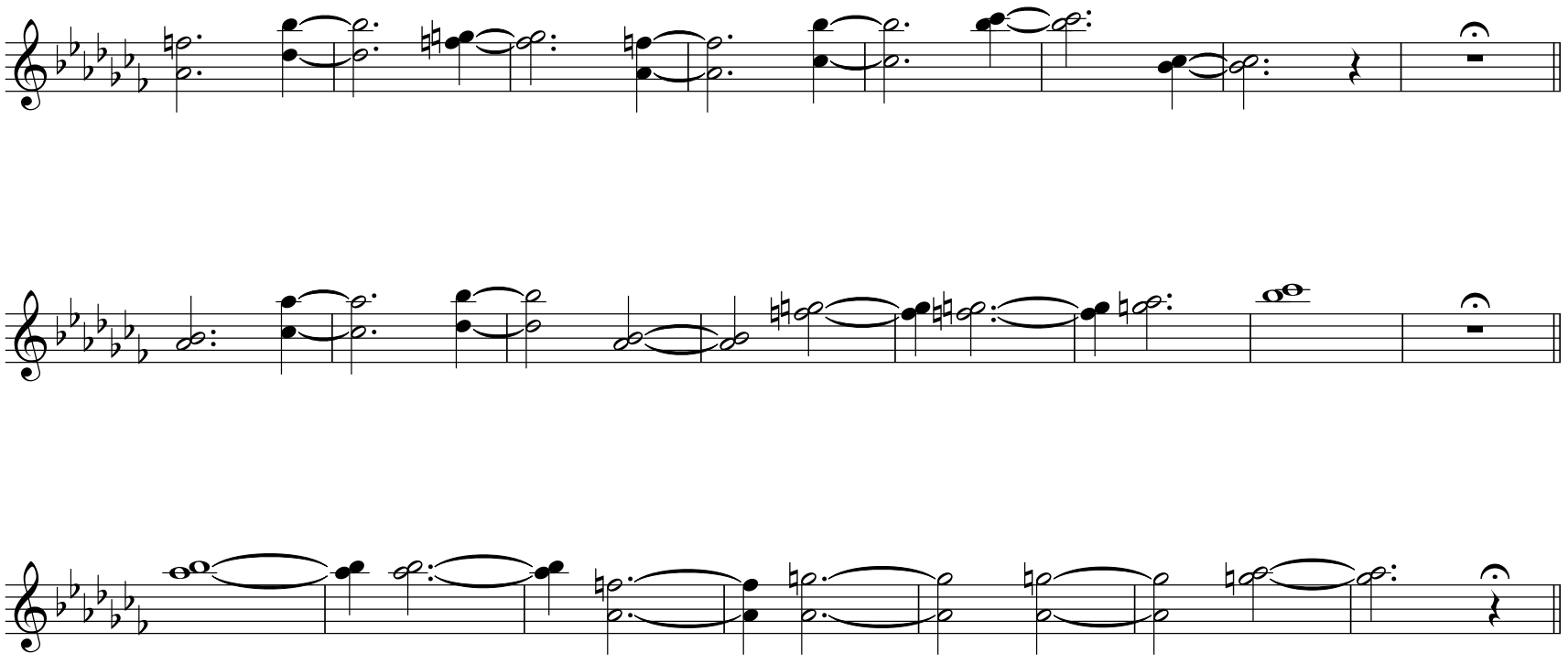

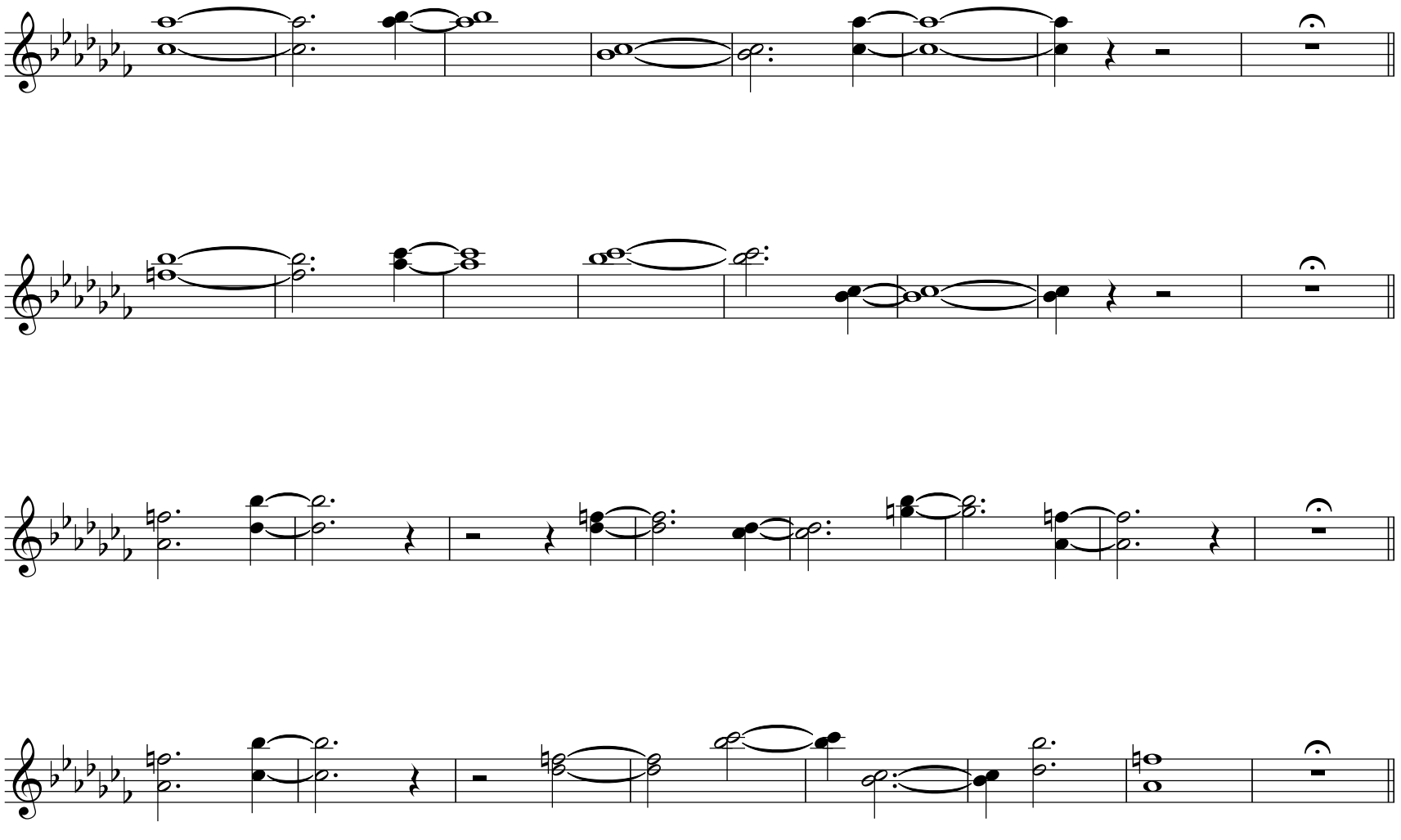

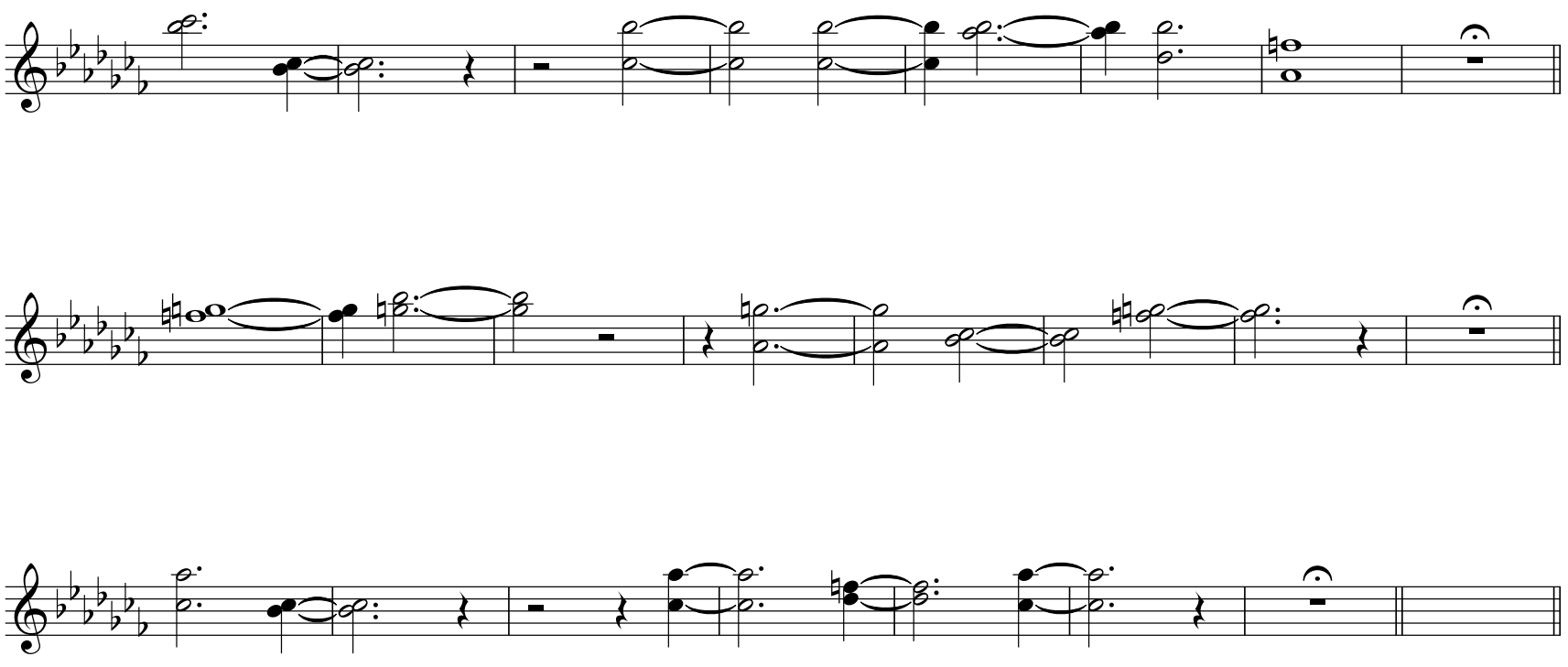

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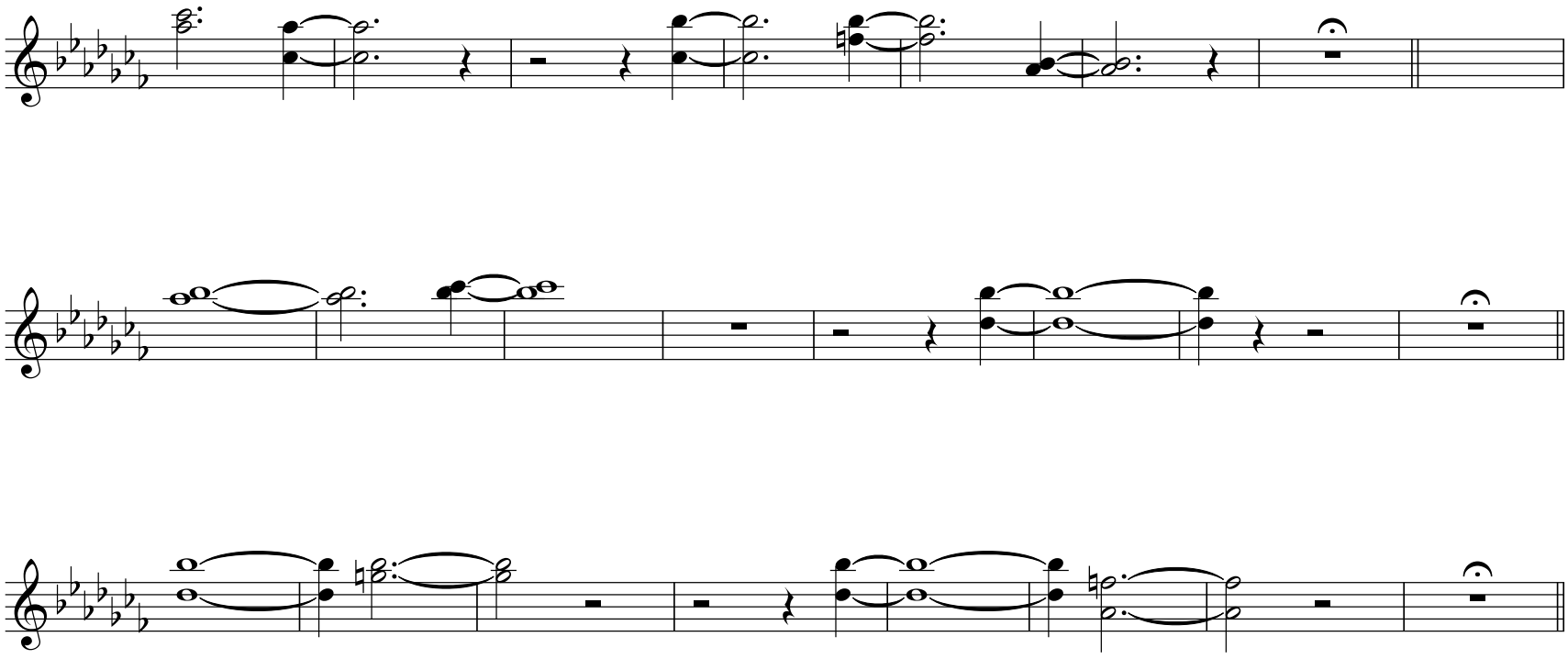

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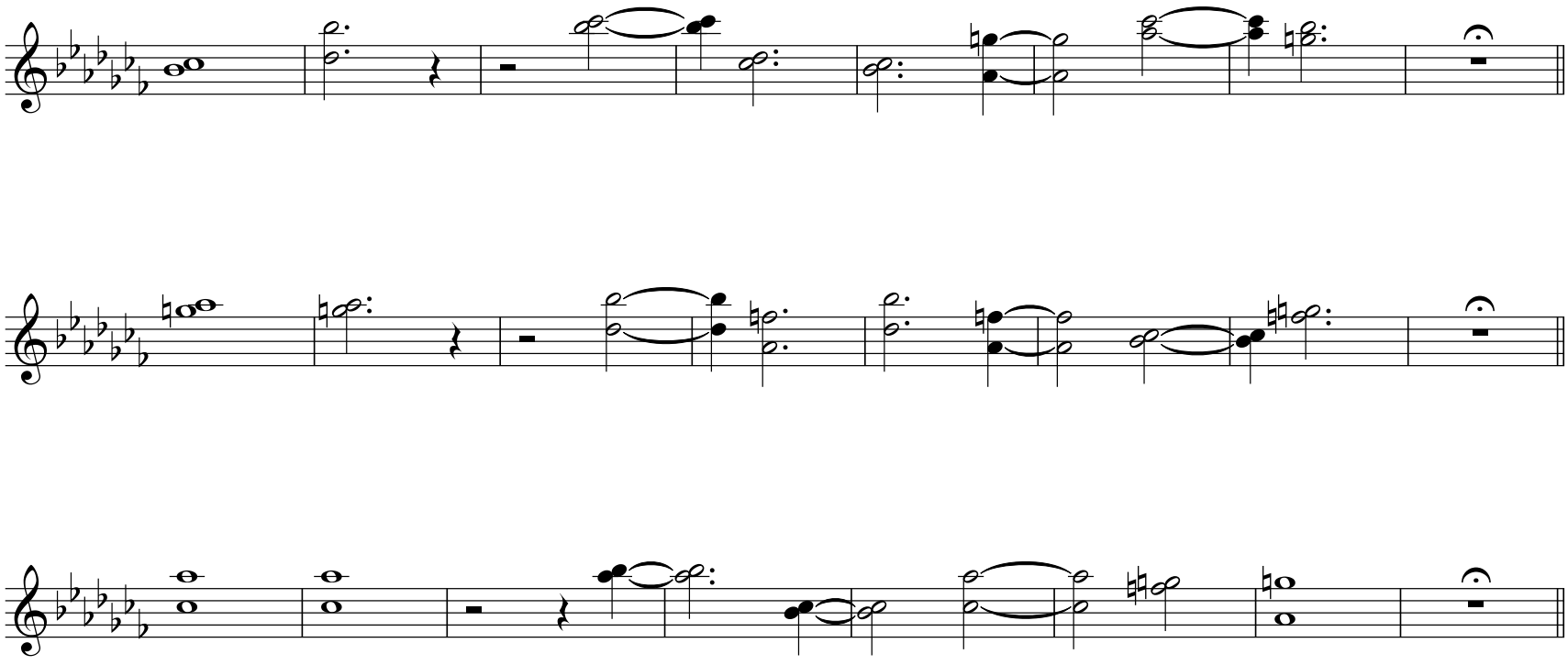

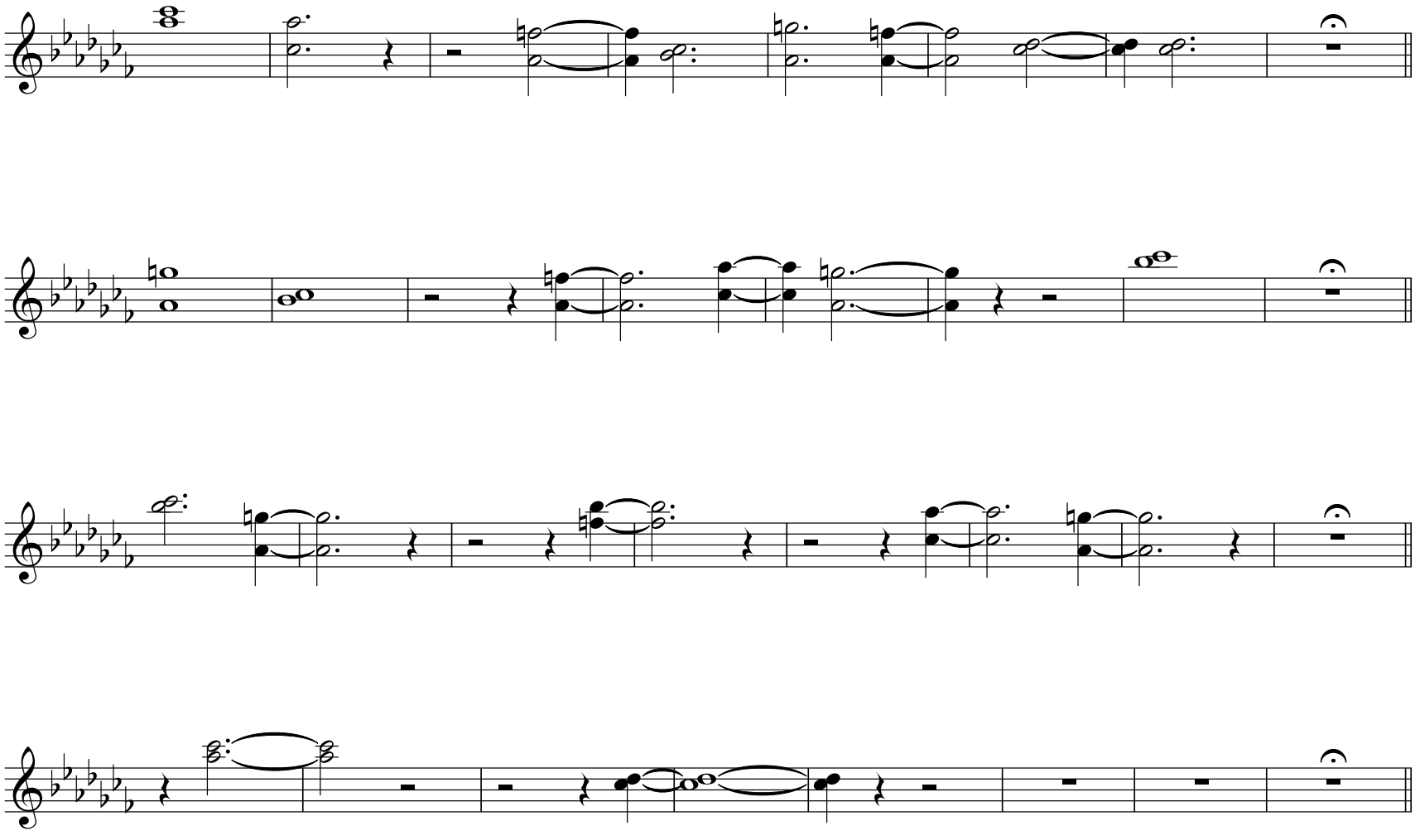

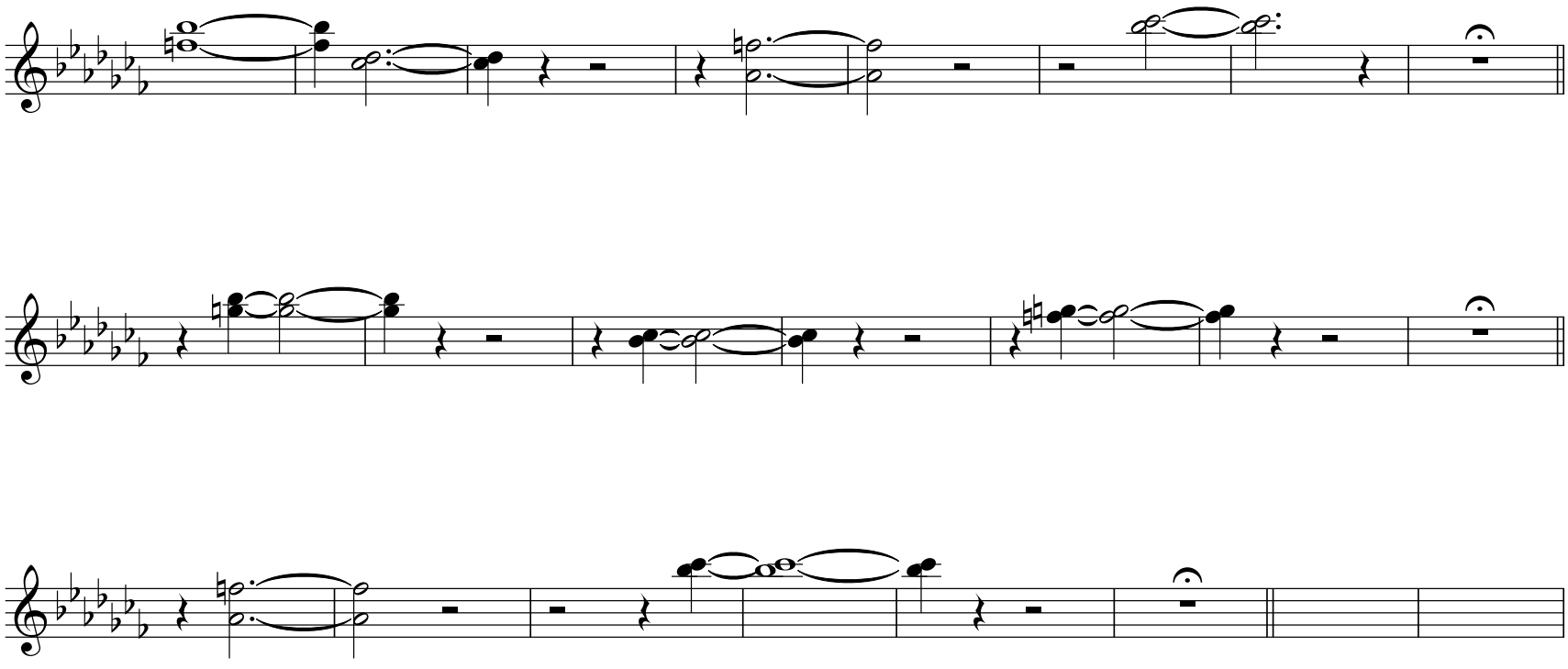

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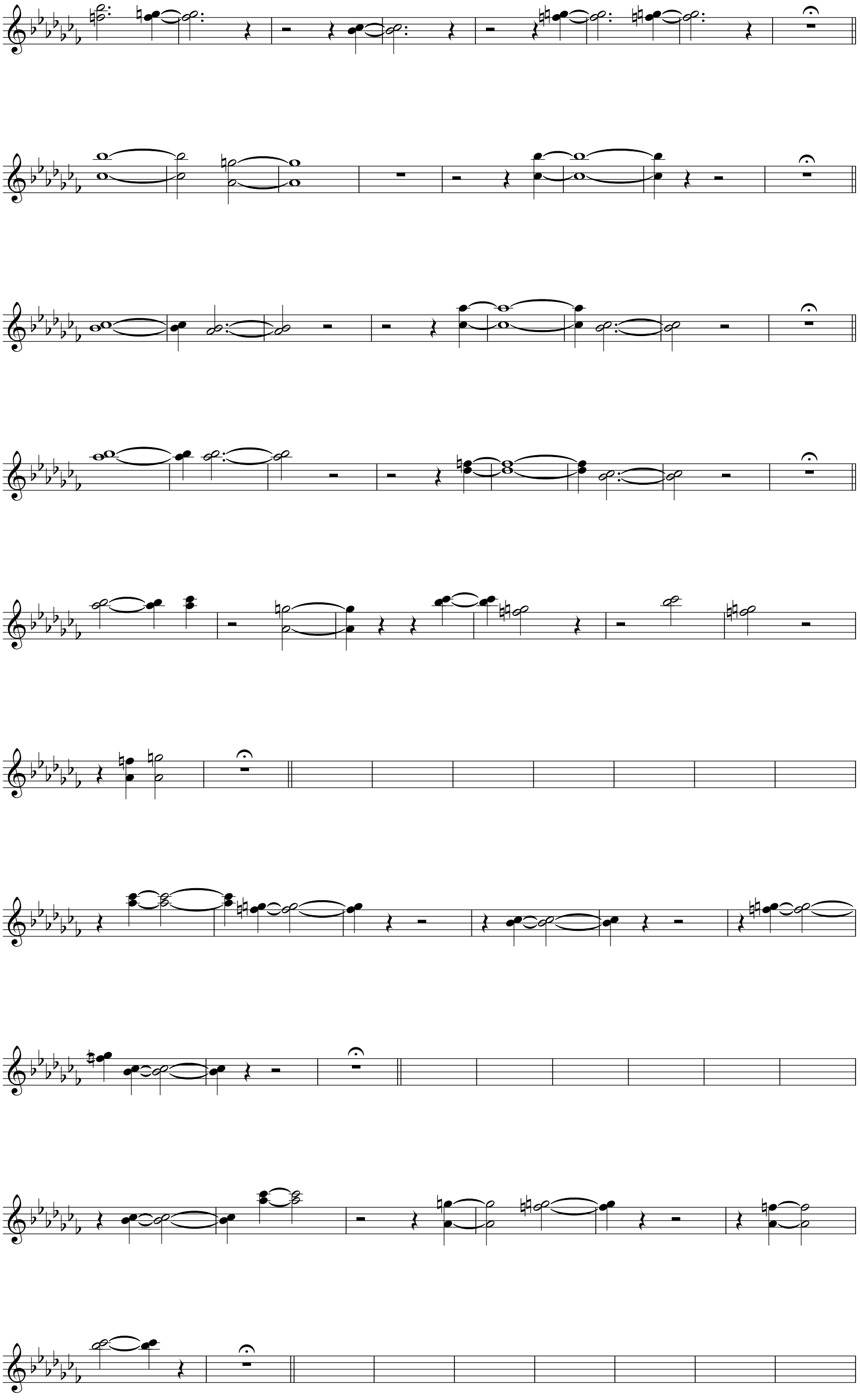

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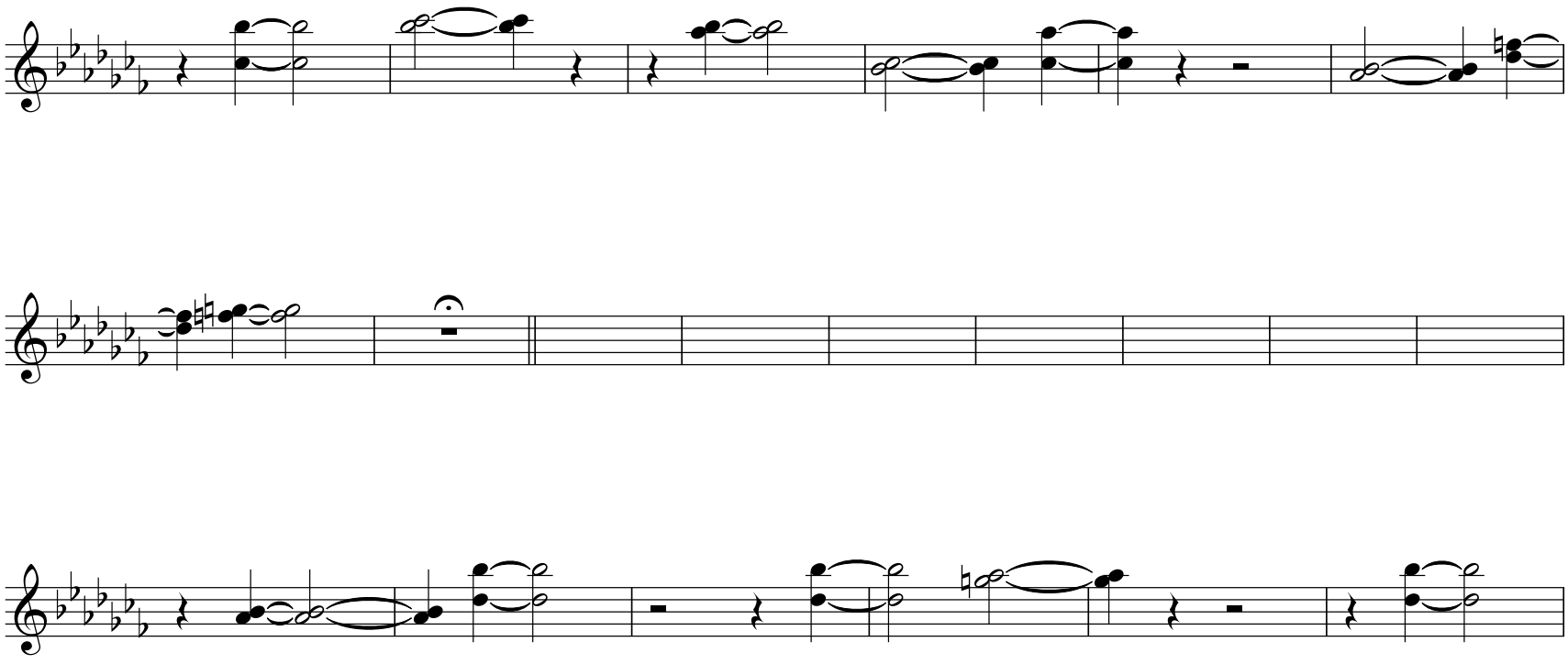

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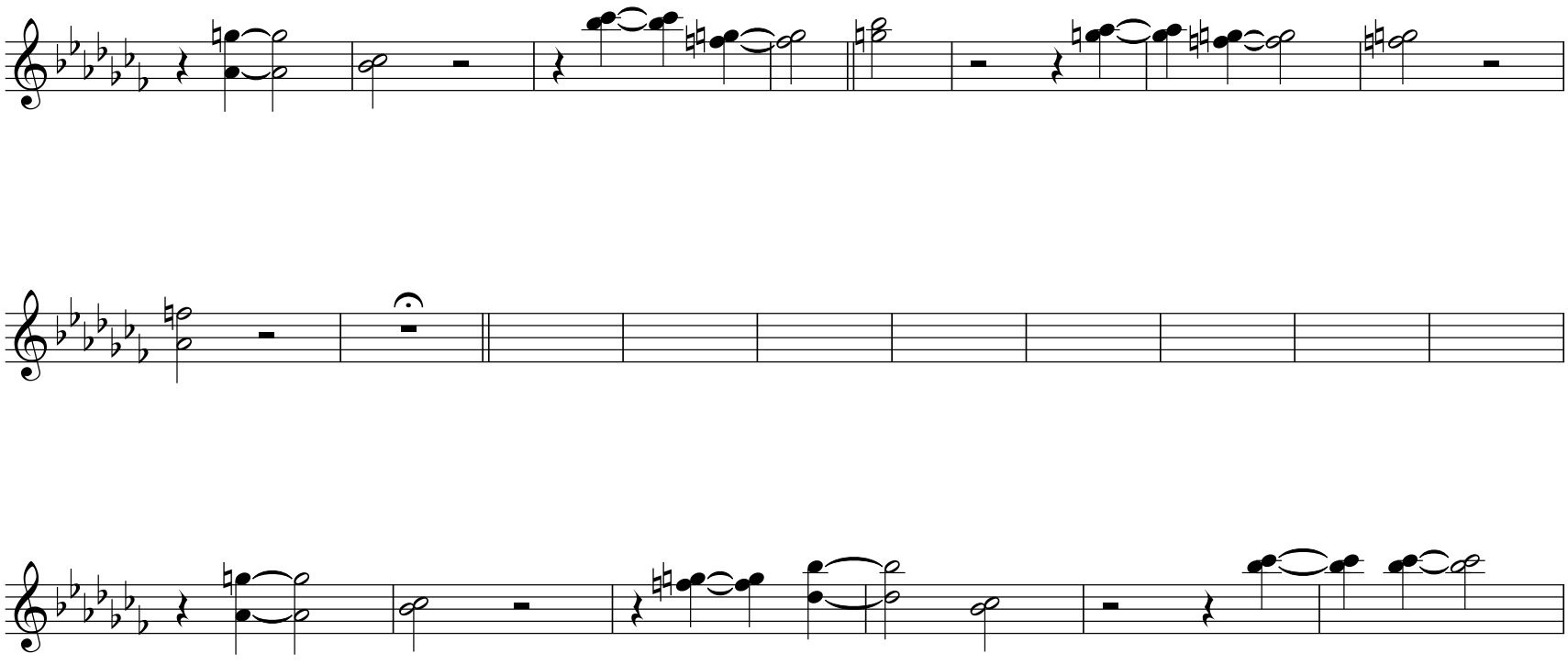

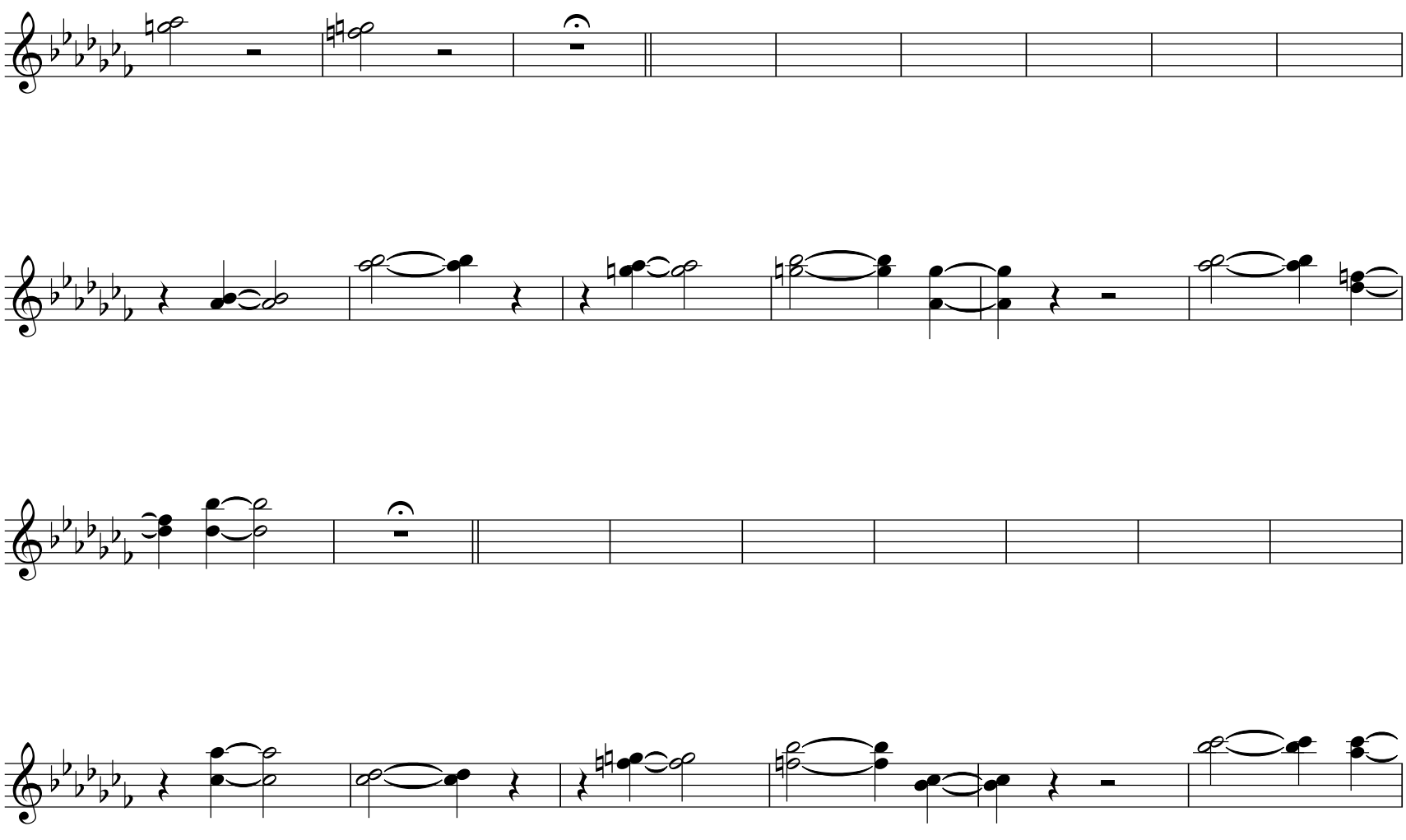

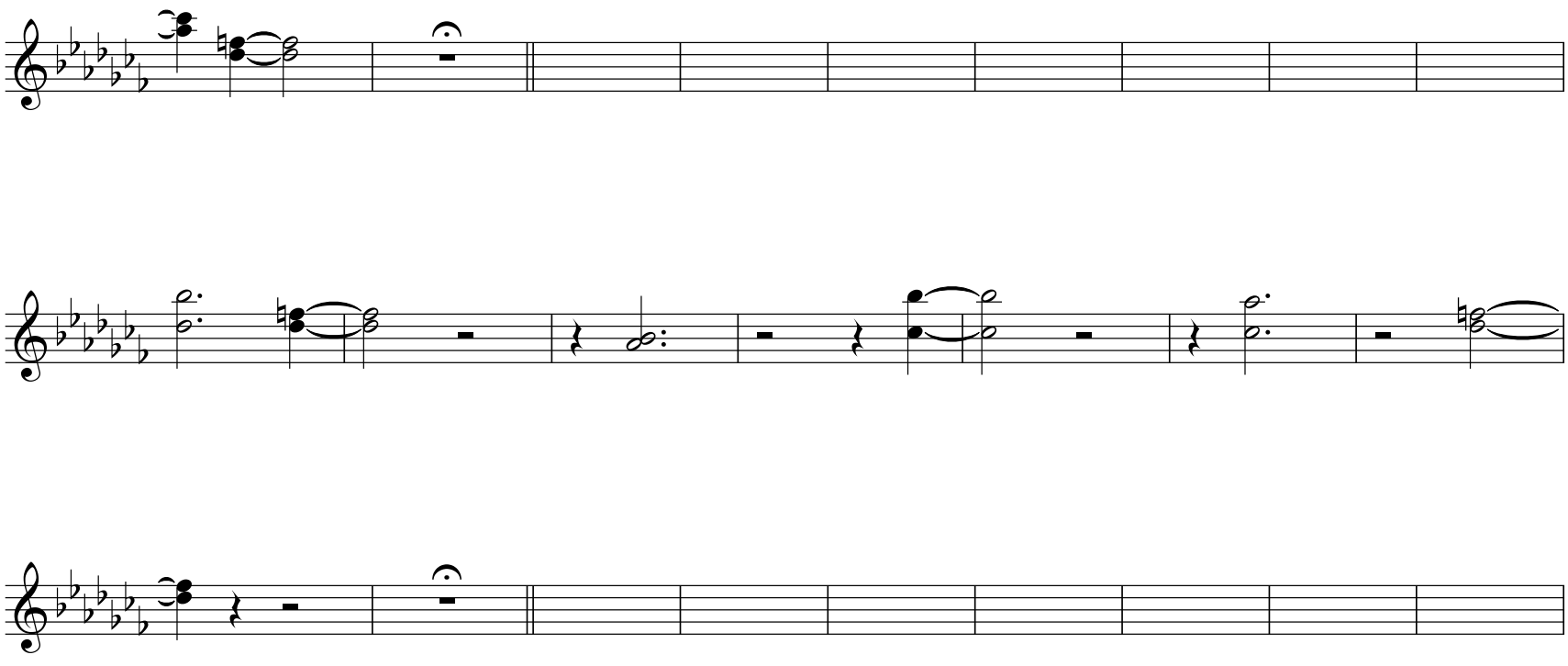

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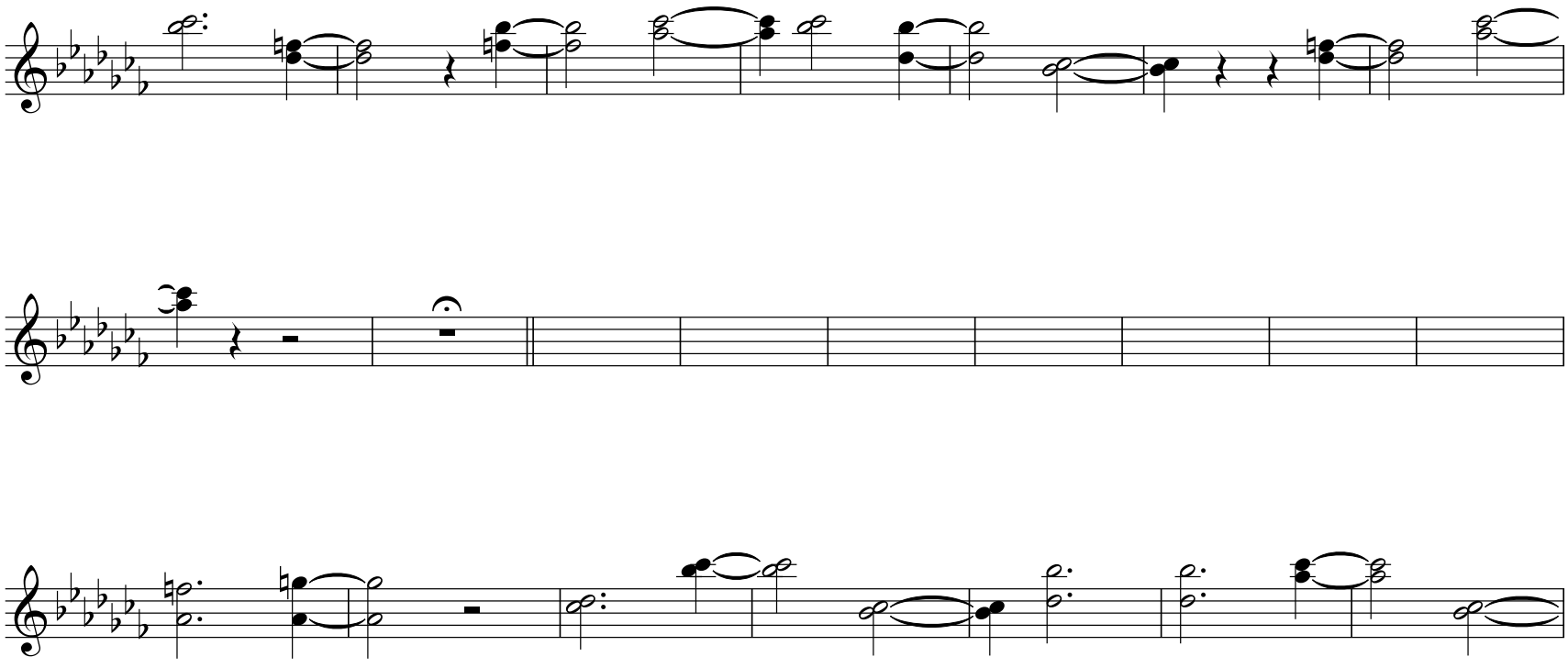
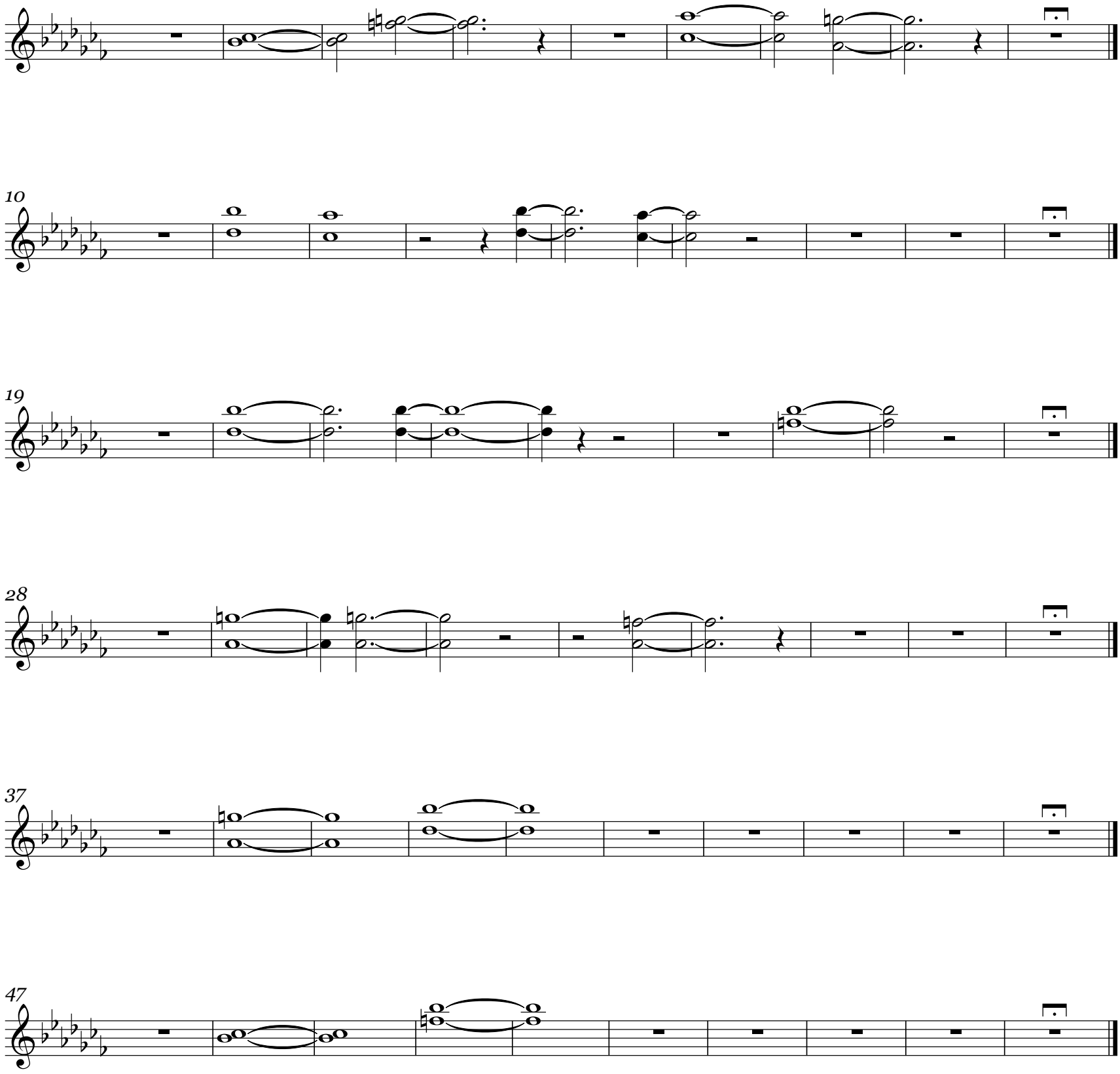


old age realizes the dreams of youth



Pintuck Seams

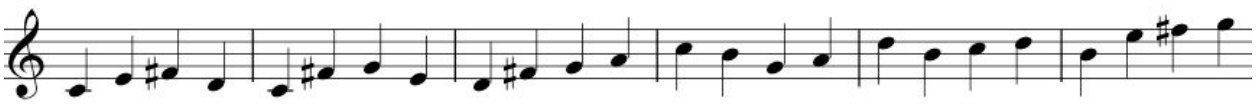
Pintuck Seams for string quartet was written in winter term 2018 and performed on April 19, 2018.

For me, the ideas in *Pintuck Seams* started from a combination of a few interrelated ideas orbiting the realm of "traditional singing". The piece explores ideas of hockets and rounds, overlapping melodies and close harmonies usually dissonant but here treated as consonant. The emphasis on close intervals was in part inspired by the effect achieved in the Lithuanian *sutartinės* folk singing tradition. The closely overlapping melodies are woven together to produce a ringing, resonant, bell-like sound.

The rhythms in *Pintuck Seams* were created using two initial Euclidean rhythms. The parameters of these rhythms were chosen ahead of time. The two Euclidean rhythms were then concatenated, so that one of the patterns immediately followed the other, forming one longer pattern. Both the two component patterns and the larger resulting pattern could be rotated to avoid very long strings of onsets or rests, especially at the point where the two patterns were joined, and at the beginning or ending of the pattern. This produced longer, more complex patterns than would have been possible with a single Euclidean rhythm. Minimum and maximum bounds were placed on the pattern, so that only a subsection of the whole pattern was actually active at any given time.

While I ran the program, I changed the values of all of the rhythm parameters, so that the Euclidean rhythms, their rotations, and the bounds of the active subsection all developed as the piece progressed. One characteristic transformation was to start with a small subsection of the pattern and then gradually expand the subsection bounds as the piece progressed, so that the length and complexity of rhythm phrases expanded as the piece developed.

The melodic material starts from a long melodic pitch pattern which I developed through improvisation. Pitches were determined by choosing melodic intervals, keeping an ear towards emphasizing major and minor seconds in the harmonies that would result from overlapping multiple instances of the melody. As with all the pieces in this portfolio, the "melodic profile" did not feature octave equivalency, and certain pitches only occurred only in higher octaves. Additionally, for *Pintuck Seams*, the profile did not proceed linearly. Upwards and downwards melodic movements were "baked in" to the melodic profile. Here is an example typical of the melodic profiles in *Pintuck Seams*:



Minimum and maximum bounds were placed on the melodic pattern too, so that the length and complexity of the melodic phrases could expand as the piece developed, just as the rhythm phrases could expand and contract.
To generate melodies, the active subsection of the rhythm pattern was used to play the sequence of pitches in the active subsection of the melodic pitch pattern. At each note onset in the rhythm subsection, the next note in the melodic profile subsection was played. Both of these patterns were allowed to repeat indefinitely, with developmental change coming through the expansion and contraction of the active subsections of each of the patterns. The rhythm pattern and the pitch pattern almost never had the same sequence length, and so they usually did not repeat in tandem.

During the writing of this piece, I was thinking of the uneven repetition of the pitch and rhythm patterns as a sort of Reich-ian phasing of the pitch pattern against the rhythmic pattern. Each time the rhythm pattern repeated, a different pitch would fall on the first onset. Or to put it the other way, each time the pitch pattern repeated, it would start at a different onset in the rhythm pattern. Only after many bars of this pitch-rhythm phasing would both patterns would eventually line up again at the beginning. In this way, even though the material of the two repeating pattern subsections was quite limited, the patterns interacted to spin out into a much longer, more developed melody. This "spinning out" of a melody from the phasing of a pitch pattern against a rhythm pattern is a characteristic effect in *Pintuck Seams*.

A "tuck" is an ornamentation in a garment, made of a pleat in the fabric which is sewn in place. Pintucks are very thin, very delicate tucks, with higher ornamental value than larger tucks or pleats. Pintucks can also be used as a type of seam, joining two pieces of fabric together by overlaying the two pieces of fabric, and then folding them over together into a pleat, which is then sewn in place.

The name *Pintuck Seams* is a sort of metaphor for how the music is put together: the different melodies were overlaid, tucked into each other, folded over themselves, brought together and formed into a new melodic-harmonic gesture made up of their combination. Additionally, pintucks are associated primarily with 19th-century home-made clothing, especially clothing for women and children, hearkening to the same history of domestic labour from which the Lithuanian *sutartinės* song tradition springs.

pintuck seams

string quartet

by

Thomas Merklinger

program notes

Backstitch Beeswax
Bias seams Blanket stitch
Catchstitch Chalk-trace
Double-fold Featherstitch

Flat-felled Finger press
French curve Gore Seams
Grainline Hip curve
Inseam Looper stitch

Match point On-grain
Notch cut Pattern draft
Pin fit Point turn
Bias-bound Anchor stitch

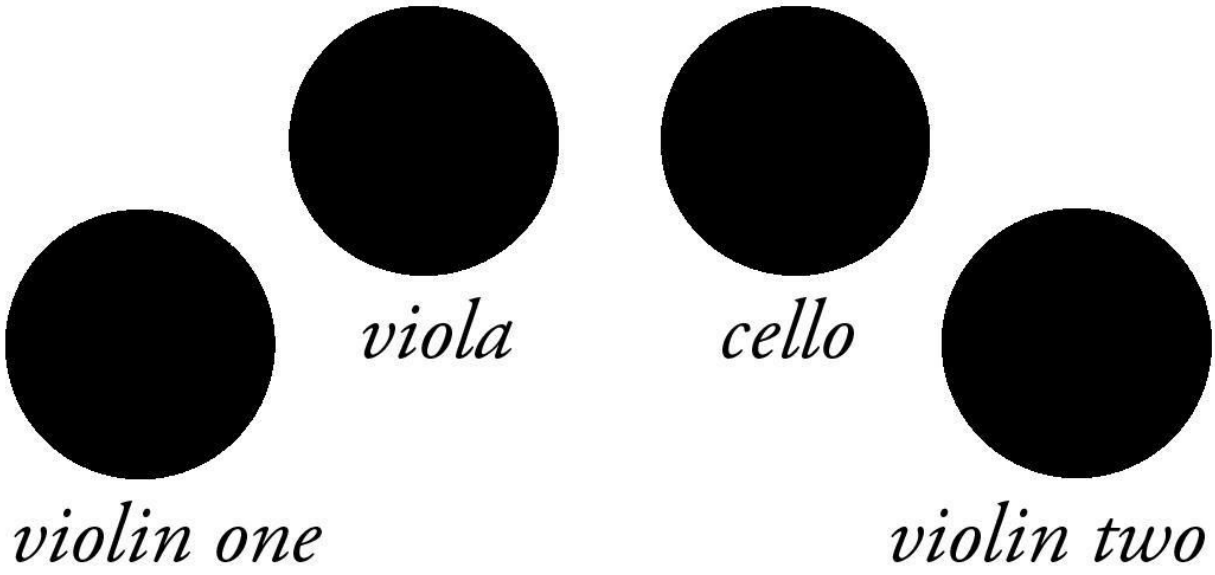
Raw edge Shoulder point
Feed dog Pocket patch
Wrong side Understitch
Thread tail Zipper teeth

performance notes

general - everyone should read

- For much of the piece, the violins play one duet, while the viola & cello play another.
- The harmonies are very close, and so special attention should be given to intonation.
- Between rehearsal mark **J** and rehearsal mark **Q**, the piece is mainly played **pizzicato**. During this section, consider the entire ensemble to be playing one interlocking part, divided amongst the players. Precise timing is a critical factor.
- A conductor may beneficial for keeping time in performance.

For the proper effect, the quartet should sit in this configuration, as closely together as is comfortable.



performance notes

for violins

- Try to play in higher positions, and avoid playing open strings whenever possible.
- The violins start the piece playing *sul G & D*. Try to add in the *A* and *E* strings gradually, as they become necessary to the material.
- During the pizzicato section, feel free to use open strings and lower positions if they are more comfortable, or if they speak more clearly.

performance notes

for viola and cello

- Viola and cello play very high throughout. Much of the piece is in treble clef.
- Because the range is so high, for cello in particular, special attention should be given to intonation.
- Your options will naturally be limited by the range of the piece, but overall try to play in higher positions, and avoid playing open strings whenever possible.
- During the pizzicato section, feel free to use open strings and lower positions if they are more comfortable, or if they speak more clearly.

PINTUCK SEAMS

1 *vivace* ♩ = 160

v1

v2

va

vc

sul G & D

f

sul G & D

mp

11

f

19 20 21 22 23 24

25 26 27 28 29 30

31 32 33 34 35 36 37

f

f

4

38 39 40 41 **42** 43 44

f

f

molto sul tasto

pp

poco a poco cresc.

45 46 47 48 49 50

mf

molto sul tasto

pp

poco a poco cresc.

51 52 53 54 55 56

mp

mp

5

57 58 59 60 61 62

mf

mf

63 64 65 66 67 68

mp

mp

71

69 70 72 73 74

f

mf

(m. s. t.)

(m. s. t.)

mf *mp*

mf *mp*

mf

mf

6

75 76 77 78 79 80

mp *mf*

81 82 83 84 85 86

mf *f* *mf* *f*

87

88 89 90 91 92

mf

93 94 95 96 97 98

mp f mf

mp f mf

99 100 101 102 103 104

ff

ff

105 106 107 108 109 110

mp

f mf

f mf

8

112

111 113 114 115 116

f

mf

f

f

117 118 119 120 121

122

f

mf

f

f

123 124 125 126 127 128

133

129 130 131 132 134

(f)

p

ord.

f

ord.

f

135 136 137 138 139 140

p. s. p. ord.

ff *mf*

poco a poco dim.

p. s. p. ord.

ff *mf*

poco a poco dim.

141 142 143 144 145 146 147

rall.

p

ord.

mp

ord.

mp

10

148 149 150 151 152 153 154

pp

pp

m. sul tasto

ord.

sul ponticello

pp f pp

m. sul tasto

ord.

sul ponticello

pp f pp

157 *a tempo* ♩ = 160

155 156 158 159 160 161

f

f

pizzicato

mf

pizzicato

p

162 163 164 165 166 167

168 169 170 171 172 173

mp

mp

174 175 176 177 178 179

p

180 181 182 183 184 185

12

188

186 187 188 189 190 191

pizzicato

mf

pizzicato

mf

p

mf

pp *p*

192 193 194 195 196 197

198 199 200 201 202 203

13

204 205 206 207 208 209

210 211 212 213 214 215

216 217 218 219 220 221

14

222

223 224 225 226 227

mp

228 229 230 231 232 233

235

234 236 237 238 239

arco, sul G
molto sul tasto

pppp

cresc. poco a poco

arco, sul G
molto sul tasto

pppp

cresc. poco a poco

15

240 241 242 243 244

pp

245

poco a poco ord.

246 247 248 249 250

p

poco a poco ord.

mf

mp

251 252 253 254

255

256

ordinario

p *mp*

ordinario

pp *p*

mf

mf

16 257 258 259 260 261 262

p

263 264 265 266 267 **268**

mf *p*

f

pp

f

mf

269 270 271 272 273 274

mf

p

f *pp*

f *pp*

f *pp*

275 276 277 278 279 280

mp *p* *mp*

f *p* *f* *p* *pp*

281

molto sul tasto
sul G & D

282 283 284 285 286

pp

m. s. t.
sul G & D

arco, ordinario

ppp

287 288 289 290 291 292

p *f*

arco, ordinario

pp *poco a poco cresc.* *f*

18 **293**

294 295 296 297 298

ordinario

ff *f*

ordinario

ff *f*

mp

mp

299 300 301 302 303 304

p

f

305 306 307 308 309 310

mp *p* *pp*

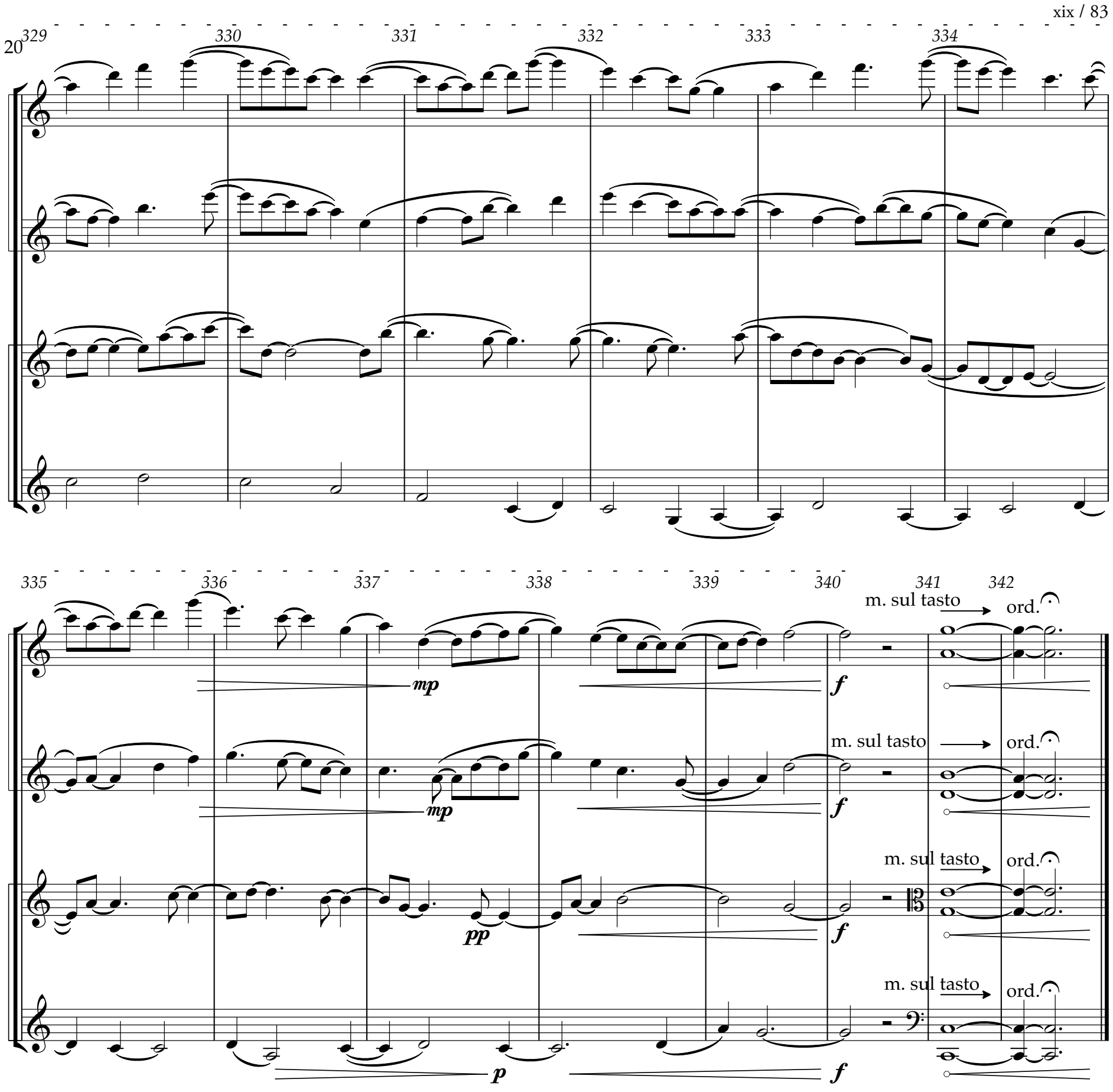
311 **312** 313 314 315 316

mp *mf* *mf* *mp* *mf* *mp*

317 318 319 320 321 322

323 324 325 326 327 328

rall.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f
f
m. sul tasto
ord.
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Daily Routines

Daily Routines was written for the U of A Experimental Improvisation Ensemble in winter term 2018 and was performed on April 17, 2018. The piece is for any number of improvising performers using whatever instruments/etc that they wish.

Daily Routines was an experiment in writing primarily for the affect of the performers. Performers were given a "character sheet" which described the temperament of their character, and a "daily routine" sheet which described the activities their character undertakes throughout the duration of the performance. The performers improvised according to how they felt about what the "character sheet" is telling them about themselves and what "daily routine" they had been assigned.

I had already been writing things in scores and performance notes specifically to influence the relationship the performer had with a certain passage or with the whole score. Some standard aspects of writing a piece are already working on this level, like the title of a piece, or an interpretive marking like *rubato*. What else is the difference between *ritardando* and *rallentando*, if not affect?

Daily Routines was is an attempt to create a piece using only affective frames. It was in part an experiment, looking to find out to the extent to which creating a piece this way is possible. To what extent might affect be instrumentalized as the basic material or primary principle of a piece?

Daily Routines is written using the language tropes of personality tests, souvenir fortunes, and corporate spirituality.

I think of *Daily Routines* as being related to the other pieces in the way it is organized according to rules of activity. The main difference is just that *Daily Routines* is implemented using literary techniques and some ideas of social interaction, rather than musical techniques and ideas of computation. The notated pieces provide a set of musical affordances out of which the piece is generated. *Daily Routines* provides a set of emotional and social affordances that the performers shape, develop and move within and around, and out of this framework, musical moments emerge.

The example of *Daily Routines* encouraged me to further expand the use of "affect markings" in the next notated piece, *Psalmody*.

daily routines

for improvising ensemble

by

Thomas Merklinger

program notes

What do all the neighbours do all day?

performance notes

Daily Routines is for any free-improvisation ensemble playing any set of instruments. The piece is a kind of game, where each performer has certain rules and behaviours they must follow while improvising. Before starting to work on the piece, each performer is assigned both a **Character Sheet** and a **Daily Routine** sheet. Together, these sheets inform the performer as to how they should improvise during the performance.

The **Character Sheet** includes information about how the performer is to feel about themselves and the other performers. It is comprised of personality test results, fortunes, and bits of spiritual guidance. The character is represented by a kaomoji, an emoji using Japanese text elements, at the top of the page.

The **Character Sheets** also have large arrows pointing left or right, with a type of personal relationship printed underneath the arrow, indicating to the performer what their relationship is with the performers on either side of them. These relationships should inform how each performer interacts with the other members of the ensemble. Performers may or may not tell each other what their relationships are.

The **Daily Routine** sheet includes information about what the performer's character does all day, and at what times of the day to do it. The **Daily Routine** sheet gives the performer concepts for patterns of activity developed over time.

For the performance, time is structured into seven sections, one section for each day of the week. The duration of the "days" is to be decided by the ensemble, but all of the days must be of equal duration. Each "day" is divided into four "times of day": **morning**, **afternoon**, **evening**, and **night**.

The ensemble plays through all four "times of day" for each of the seven "days of the week." Each performer improvises according to what behaviours and activities are given on their **Character Sheet** and their **Daily Routine** sheet.

Changes in time of day are indicated by changes in the stage lighting, performed by a technician or performer. The exact lighting cues are determined by the ensemble. If it is not feasible to indicate the structure of the performance using changes in stage lighting, all performers can keep track of the sections using chronometers. Durations are calculated from the duration of the "day".

The performance starts with stage lighting down. Players begin playing when the stage lights come indicating that the "time of day" is **morning**. The performance starts on **Monday**.

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Temperament

Contained and adaptable. You are known for your brilliant theories and vigorous intellect. You enthusiastically parse through all the factors and details of an issue. If you get too excited, you can become incoherent as you try to explain the string of conclusions that led to your latest idea. You can sometimes appear pensive and detached. You do not provide emotional support for your friends very well. You can be shy among unfamiliar faces. There is no limit to the time and energy you will expend in developing an insightful and unbiased solution.

Fortune:

To be idle is to be foolish. Pursue your wishes aggressively.

Spiritual Guidance:

You and I are dreamweavers of the quantum matrix. The goal of morphic resonance is to plant the seeds of spacetime rather than yearning.

Relationships

Person on your left: *Spouse*

Person on your right: *Building manager*

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Temperament

Warm, empathetic, responsive, and responsible. You find potential in everyone, wanting to help others fulfill their potential. You facilitate collaboration, guiding others to work together to improve themselves and their community. Sometimes you can overextend your optimism, pushing others further than they're ready or willing to go. When you believe in someone, you can become too involved in the other person's problems. You want to lead the way to a brighter future.

Fortune:

A warm smile is testimony of a generous nature. A gathering of friends will bring you luck.

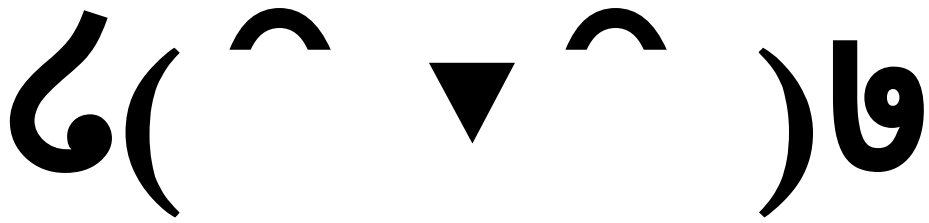
Spiritual Guidance

The goal of ultra-sentient particles is to plant the seeds of ecstasy rather than discontinuity. Today, science tells us that the essence of nature is starfire. Only a child of the stratosphere may engender this vision of self-actualization.

Relationships

Person on your left: *Babysitter*

Person on your right: *Grandparent*



Temperament

Charming and compassionate. You are often the life of the party, but are more interested in social connections than in excitement. You spend a lot of time exploring ideas, feelings, and relationships before you find something that rings true. You believe that everyone should take the time to recognize and express their feelings. Sometimes you rely too much on your intuition and assume or anticipate too much about a friend's motivation. You are are always looking for a deeper meaning.

Fortune:

Take care of yourself first. Then help others. Show everyone what you can do.

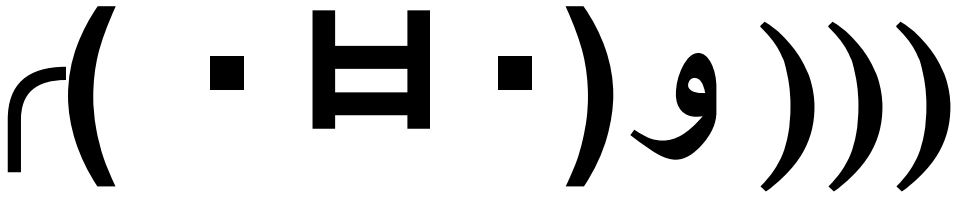
Spiritual Guidance

Who are we? Where on the great mission will we be aligned? We are in the midst of a zero-point blossoming of complexity that will be a gateway to the stratosphere itself. Humankind has nothing to lose.

Relationships

Person on your left: *Housekeeper*

Person on your right: *Nemesis*



Temperament

Frank and decisive. You have a great ability to think strategically and hold long-term focus. You develop and implement comprehensive systems to solve organizational problems. You firmly believe that given enough time and resources, you can achieve any goal. Emotional expression isn't your strong suit. You are dominant, relentless, unforgiving, but not cold-hearted or vicious. Remember that your success comes not just from your own actions, but from the actions of the team that supports you.

Fortune:

Don't hesitate to tackle a difficult problem. Things may seem much worse than they are.

Spiritual Guidance

We are at a crossroads of presence and bondage. Our conversations with other starseeds have led to a flowering of ultra-zero-point consciousness. Reality has always been radiating pilgrims whose dreams are engulfed in starfire.

Relationships

Person on your left: *Dog walker*

Person on your right: *Friend of your sibling*

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Temperament

Quick and outspoken. You have a good understanding of how opposing ideas relate to each other. You enjoy the mental exercise in questioning the prevailing mode of thought. You like to create original ideas, then step back and let more fastidious collaborators handle the logistics of implementation and maintenance.n. Your intellectual independence and free-form vision is sometimes counterproductive in a group collaboration. Don't spend more time "winning" arguments than building consensus. You need the support of others in order to be successful.

Fortune:

Strength is built upon inner character. Learn from your mistakes. Try not to make them again.

Spiritual Guidance

Without non-locality, one cannot self-actualize. Only a wanderer of the grid may foster this rekindling of joy. Yes, it is possible to exterminate the things that can eliminate us, but not without life-force on our side.

Relationships

Person on your left: *Garbage collector*

Person on your right: *Student*

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Temperament

Warmhearted, conscientious, and cooperative. You want harmony in your environment. You notice what others need in their day-by-day lives and try to provide it. If there's tension in the room, you pick up on it and try to restore stability to the group. It is easy for your feelings to be hurt if your ideas are rejected or if people aren't interested. You need to remind yourself that other people's behaviour isn't a comment about you or what you've organized. You do your best to make sure everyone is happy.

Function:

Well done is better than well said. Trust your friends, but keep your eyes open.

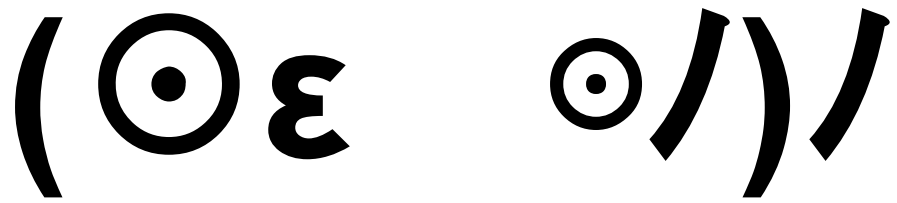
Spiritual Guidance

Balance requires exploration. The planet is electrified with four-dimensional superstructures. The harmonizing of divinity is now happening worldwide.

Relationships

Person on your left: *Dental hygienist*

Person on your right: *Child*



Temperament

Outgoing, friendly, and accepting. You learn best by trying a new skill with other people. You get caught up in the excitement of the moment - and want everyone else to feel that way, too. You are more likely to avoid your own conflicts than address them head-on. Repetitive tasks are not easy activities for you. Sometimes you rely on friends and family to cover for your responsibilities. You must challenge yourself to keep track of long-term issues. You are prone to spontaneously break into song and dance.

Fortune:

Don't wait for success to come - go find it! Avoid negative people to stay positive.

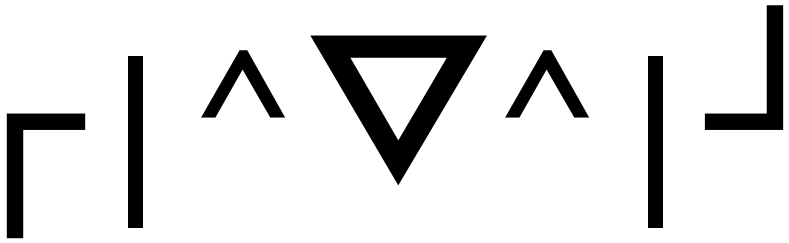
Spiritual Guidance

The future will be a cosmic redefining of serenity. Imagine a redefining of what could be. We are being called to explore the solar system itself as an interface between empathy and science.

Relationships

Person on your left: *Assistant*

Person on your right: *Cousin*



Temperament

Energetic and inquisitive. You learn best through doing. Theory and abstract concepts don't keep your interests for long. You enjoy each moment that you can be active with others. You always have an impact on your immediate surroundings. You use your own moral compass and not an external arbiter. You can get caught up in the moment and take things too far. You sometimes are inconsiderate of more sensitive people. You fix your mistakes as you go. You enjoy drama, passion, and pleasure, not for emotional thrills, but for mental stimulation.

Fortune:

Be cautious in your daily affairs. Try to value useful qualities in one who loves you.

Spiritual Guidance

This life is nothing short of an evolving quantum leap of magical presence. Today, science tells us that the essence of nature is potential. Stardust is the richness of potential, and of us.

Relationships

Person on your left: *Parent of your kid's friend*

Person on your right: *In-law*

Temperament

Conscientious and committed. You have an inborn sense of idealism and morality. You tend to see helping others as your purpose in life. You take concrete steps to realizing your goals and making a lasting positive impact. Though you are soft-spoken, you have very strong opinions. Your passion sometimes carries you past your breaking point. When you feel too pressured, you tend to fight back in unhelpful ways. You sometimes need to have your own space for a few days. You work with creativity, imagination, conviction and sensitivity to create balance.

Fortune:

Pursue your dreams with vigor. Demonstrate refinement in everything you do.

Spiritual Guidance

The quantum soup is calling to you via molecular structures. Can you hear it? If you have never experienced this evolution at the quantum level, it can be difficult to grow. How should you navigate this perennial world?

Relationships

Person on your left: *Employee*

Person on your right: *Teacher*

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Temperament

Responsible, and conscientious. You strive to create an orderly and harmonious environment at work and at home. You combine the best of tradition and the desire to do good. You have well-developed people skills and robust relationships. You have a tendency to underplay your accomplishments. You are never truly comfortable in the spotlight. You need to remember to stand up for yourself to maintain your confidence and enthusiasm. You use your imagination and natural sensitivity to express your generosity.

Fortune:

Work first, but make sure to play later. Your good nature will bring you unbounded happiness.

Spiritual Guidance:

Visitor, look within and beckon yourself. Have you found your mission? The multiverse is calling to you via supercharged electrons. Can you hear it?

Relationships

Person on your left: *Friend of your Dad's*

Person on your right: *Spiritual advisor*

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Temperament

Friendly, sensitive, and kind. You enjoy the present moment and what's going on around you. You like to upset traditional expectations with experiments in beauty and behavior. You are sensitive to the feelings of others and value social harmony. You dislike disagreements and conflicts. You sometimes lose your temper in spectacular fashion when faced with harsh criticism. Once an argument is over, you can usually call the past the past and move on as though it never occurred. You are introspective, and you need time alone to recharge.

Fortune:

Be definite now, worry about precision later. Your greatest fortune is the friends and family you have.

Spiritual Guidance:

This quest never ends. The future will be a karmic awakening of choice. Soon there will be an unfolding of divinity the likes of which the universe has never seen.

Relationships

Person on your left: *Romantic interest*

Person on your right: *Mail delivery person*

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Temperament

Quiet and serious. You don't make many assumptions. You analyze your surroundings, check your facts and arrive at a practical course of action. You earn success by thoroughness and dependability. When you say you are going to get something done, you do it. You value honesty more than emotional considerations. You struggle to express emotion or affection outwardly. You see dependency on others as a weakness. Sometimes people feel that you are cold or robotic. However, you are deeply hurt when others suggest you are unemotional or lack personality.

Fortune:

Look in the mirror without admiring your reflection. You might want to run, but you should stay and fight.

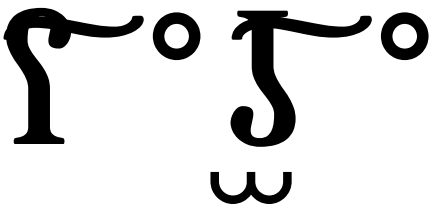
Spiritual Guidance:

The galaxy is full of frequencies. Consciousness consists of electrical impulses of quantum energy. "Quantum" means an invocation of the heroic. We believe, we grow, we are reborn.

Relationships

Person on your left: *Someone you always see when you're doing out errands*

Person on your right: *Friend*



Temperament

You are tolerant and flexible. You love to explore with your hands and your eyes. You combine your creativity, sense of humor and hands-on approach to build practical solutions and tools. You have a tendency to explore your relationships through actions rather than through empathy, leading to some very frustrating situations. You must remind yourself that others have more firmly drawn lines on rules and acceptable behavior than you do. You find no greater joy than in pulling things apart and putting them back together.

Fortune:

You will soon receive a surprise from a lover. Happiness may be right under your nose.

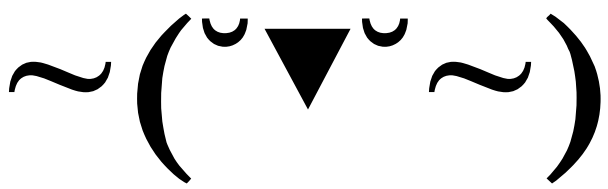
Spiritual guidance:

How should you navigate this intergalactic quantum soup? This life is nothing short of a redefining lightning bolt of intergalactic flow. By unveiling, we believe.

Relationships

Person on your left: *Local politician*

Person on your right: *Grocery store clerk*



Temperament

Skeptical and independent. You have a great drive for implementing your ideas. You push change through with sheer willpower and force of personality. You believe that with effort, intelligence and consideration, any goal can be achieved. You do not believe in rules, limitations, or traditions. You do not take the time to respect or even understand all social niceties. Your distaste for emotion can make others feel that you act without conscience. Your cynicism tempers what you consider practical, but your idealism heightens what you consider possible.

Fortune:

Good luck comes from good planning. The best way to predict the future is to create it.

Spiritual Guidance:

Our conversations with other adventurers have led to a deepening of supra-non-local consciousness. Reality has always been beaming with messengers whose hopes are immersed in stardust.

Relationships

Person on your left: *Work friend*

Person on your right: *Friend of a friend*

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Temperament

Practical, realistic, matter-of-fact. You can make even the most complicated tasks seem easy and approachable. You lead by example, demonstrating dedication and purposeful honesty. You have a tendency for inflexibility. You need to remind yourself that not everyone contributes in the same way. You must try to recognize the validity of individuals as well as that of the group. You truly believe that your values are what make society work, and you work hard to create a sense of community identity.

Fortune:

To achieve wisdom, you must first desire it. Move quickly. Now is the time to make progress

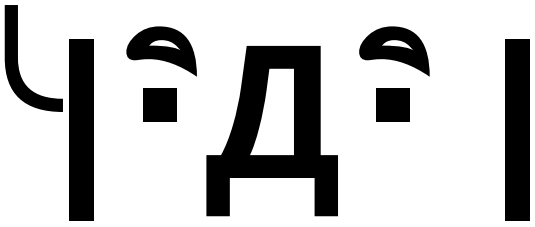
Spiritual Guidance

Although you may not realize it, you are intergalactic. The planet is calling to you via molecular structures. Can you hear it? Lifeform, look within and enlighten yourself.

Relationships

Person on your left: *Friend of the family*

Person on your right: *Neighbour*



Temperament

Flexible and accepting. You seek to understand people and to help them fulfill their potential. You are always looking for the hint of good in even the worst of people and events. You are proud of your principles, but this drive can lead to isolation. You can become overwhelmed and dejected by how many problems there are that you can't address. If you allow yourself, you can start to lose touch. Sometimes it takes a lot of energy from other people to keep you grounded. When making decisions, you are guided by honour, beauty, morality, and virtue.

Function:

Seek out a new environment if you're stuck in a rut. Travel is in your future.

Spiritual Guidance

We are at a crossroads of karma and discontinuity. Who are we? Where on the great circuit will we be recreated? Reality has always been beaming with lifeforms whose auras are engulfed in divinity.

Relationships

Person on your left: *Secret Admirer*

Person on your right: *Therapist*

Daily Routine

Each day, you get up early in the morning. You make your coffee & drink it before anyone else in your house wakes up.

At your job, you are a conscientious worker, but let's be honest, the modern work-day is not really designed for productivity. You are friendly and engaged and meet deadlines, but there is plenty of time for your mind to wander.

You think you would like to be an artist, like Pam Beasley from *The Office*.

After work you drive home, picking up a family member on the way. At home, you wash up and get out of your work mood. Sometimes you make dinner, often someone else does. You always do the washing up.

In the evening you go out and walk around the neighbourhood.

On **Thursday** you work late. Your get up later in the day and your routine starts later, but you still go to bed at the same time.

On the **Weekend** you keep the same hours as during the week. You do errands, like going to the grocery store, and you do chores around the house. Sometimes you go on day trips to the countryside.

Daily Routine

You have trouble getting up in the morning, and rest your alarm clock many times. When you do get up, you are rushed. You let your coffee brew when you're in the shower, and then you drink the coffee while you're going out the door.

You're studying Gravitational Dynamics in school, but you think you might prefer to study something artsier, like English.

In between classes, you either read books or hang out with friends. Neither is a very directed activity.

When you get home, you'll usually make yourself dinner, and then watch TV shows from the early 2000s on Netflix, or do homework. Sometimes you get bursts of energy and stay up late making extremely detailed physics models of fictional universes on your computer.

On **Tuesday** and **Wednesday** you have a night class on Extragalactic Astronomy. It is by turns both mind-numbing and exhilarating.

On **Weekends** you always sleep in and go to bed late. You usually spend the weekends doing the real meaningful school work - it"s easy to be distracted by the hurried routine of the week.

Daily Routine

You work nights, so your schedule is offset. You usually wake up in the mid-afternoon, when everyone else is at work. You have a lot of time to get ready for the day, and always make a real breakfast.

When you do get to work, you overlap with a few people who are getting off their shifts. You have known each other for years.

Very little happens during the night. Sometimes someone does show up, and you act accordingly, but mostly there are no requirements. You spend a lot of time strolling around, imagining you are visited by aliens, or fantastical things that might happen during your shift.

When you get home, you'll make a good dinner, and then watch B-movies from the 50s, like *Attack of the Crab Monsters* (Roger Corman, 1957), and fall asleep.

You have **Friday** and **Sunday** off from work, but you keep the same hours so you don't mess up your sleep schedule. You have some time to be social, but later at night you are usually on your own. You often drive far out to the countryside, away from the city, to look at the stars.

Daily Routine

Your alarm clock rings, and you get up right away, get dressed and run downstairs. Someone has made breakfast for you.

You always are ready early, and you have to wait for the bus. While you are waiting, you usually try to think of questions no one has ever asked before.

At school, you are studying math, and also the ancient history of Egypt. The pyramids are so old! Even the ancient Romans thought Egypt was old.

When you get home, you spend most of your time outside, exploring, sometimes with friends and sometimes alone. You have found many nooks and crannies, weird bends in the trees and little secret spaces in the woods. You have a whole map of your town of things no one else knows about.

When you get home, you'll wash up and have dinner, and then have a bath. You go to bed early, reading *Nancy Drew* before going to sleep.

You have **Saturday** and **Sunday** off, and you mostly do the same thing as always, exploring and making maps. Sometimes you watch TV or play games. If the weather is not so nice, you get upset or bored.

Daily Routine

You wake up when the alarm gets off, but take a moment to prepare yourself to get up. Sometimes you fall asleep again, which makes you rush later. Usually you are up on time, shower and have breakfast.

Most of your work day is taken up by meetings where it seems nothing ever gets accomplished. You know that eventually things *do* get accomplished, but it takes so long that you can never see it as it's happening. Still, your job is not very difficult, so you feel guilty about being frustrated by it.

At home you usually make dinner, but someone else does the dishes, so you go and read the newspaper to see what the local politicians are up to.

You're saving up to move to France, so you try not to spend any money. You are taking a free online course, and you are trying to read *À la recherche du temps perdu* (Proust, 1927) in the original language.

You have **Saturday** and **Sunday** off from work and you like to go for long walks in the park. You take European movies out from the library. You've already seen all the French ones, so you're working your way through the oeuvre of Polish filmmaker Krzysztof Kieślowski. A lot of his movies are also in French.

Daily Routine

You get up after everyone else has left for the day. You always make your own coffee, even if there's already some made. No one else does it right.

You don't have to work at all at this point, but you still do sometimes because you still love the work. There are also many people close to you and also around the world who appreciate what you do and admire you for it - and you enjoy being admired.

You usually have someone else make dinner for everyone, but you enjoy cooking and you do it yourself sometimes too, if there is a recipe you want to try out. You never do the washing up.

In the evenings you spend some time with family and friends, or by yourself. Sometimes you work on a novel you are writing. This is a new type of project for you, and no one else knows about it, but it takes up a lot of your mental energy. Sometimes you joke to yourself about authoring a successful young adult book series.

You do your real work most often on **Saturday** and **Sunday** - partly so you can get out of the house while everyone else is around all day.

Daily Routine

You get up early, get ready and have coffee. You make breakfast for the others, but usually have to leave just as they're getting up, so you can catch the bus on time.

You take the bus to work, which can sometimes take quite a long time. You used to listen to podcasts on the bus, but you've switched to an audiobook of *One Hundred Years of Solitude* (Márquez, 1967), to try out something new.

Work is busy, but steady, not rushed. You do the same thing over and over again, but each time you finish as task, you see the results immediately. You feel accomplishment when a big project is finished, even if you only contributed in a small way.

After work you usually go to a nearby diner, *Barb's Hot Fritters*, where you have your own "the usual". Then you take the bus again to your second job, which is much less busy, but still requires constant attention.

You have **Saturday** and **Sunday** off from both your jobs. You usually spend the weekend resting up for the coming week. You like to do crossword puzzles in the bath, and sometimes you play Scrabble online with people who have screennames like wUrdMastr6969. You win, but not as often as you'd like.

Daily Routine

You get up early, and take your time getting ready for the day. The morning is the most important time, you think, so you go through it carefully.

They say that at this point you aren't really fit for most jobs. You know you could do a lot more, so sometimes you get frustrated. However, you do like this job, so most of the time you are happy about it. You see lots of people every day, and over time you have become friends with the regulars.

After work you do a lot of different activities, most of them physical, to try to build up your strength. You like rock climbing the best, even though it is very difficult, and you go once or twice a week with a group of friends. Sometimes you also go to the public library, because you like to study and learn things. You want to be well-rounded.

Sometimes you get home quite late after being out doing things, but you always say goodnight. If you are home early, you sometimes make dinner, and you like to watch old TV shows like *Gilligan's Island* (1964) or *The Patty Duke Show* (1963) with the others.

You have **Saturday**, **Sunday**, and **Monday** off from work. On the weekend you spend lots of time with friends, and often go on day trips, or sometimes you go camping. You usually spend Monday by yourself, because everyone else is at work, and because you do need some time to recharge.

Daily Routine

You work on **Thursday**, **Friday**, and **Saturday** nights, often until early the next morning. You usually don't get home until after the sun has come up. It's hard work, busy and rushed, but requiring precision and a specialized knowledge.

You are usually still energized from work when you get home, so you often don't go to sleep until the late morning. You like to exercise during this time, and you often have breakfast with friends who have more regular schedules. You think you probably aren"t getting enough sleep, but you feel ok about it for now.

You have **Sunday, Monday**, **Tuesday**, and **Wednesday** off from work. You don't really have a schedule on these days. You sleep more, and you get up slowly, taking your time making breakfast and usually watching a lot of TV. Sometimes you meet up with other people, but usually you are alone.

You stay up late on these nights too, sometimes even later than you do for your job. You like to focus on art projects during this time - you work in several different mediums - and you're sure you're going to be a successful artist some day. Your favourite artists are Jean Dubuffet and Georg Baselitz, but you secretly dream of being wealthy and famous, larger-than-life, like Andy Warhol or Damien Hirst.

Daily Routine

Your don't really have a routine. Your schedule is determined by what events are going on in the world, what needs to be examined and investigated, documented and displayed. You can get called in to work at any time of day, and you always rush in with determination and enthusiasm. You are always interested to find out what happened.

Because your job is so unpredictable, it can be hard for you to make plans or do scheduled activities. You are tired a lot, and spend a lot of your off-time resting up, or doing research. You see friends when you can, but it's not as often as you'd like. Some of your strongest relationships are with convenience store clerks or the baristas at the local independent coffee shop *Warm Bean Juice* - people you usually see every day.

You sometimes go long stretches without having to go to work. You have several hobbies, but if you go for a particularly long time without a real project, you start to get anxious. You think you should take a vacation, but you're pretty sure you never actually will. Sometimes you get taken in by fantasy - you dream of living in a Tuscany-style villa, perched on the rim of the large Theophilus crater on the moon.

Daily Routine

You get up and make coffee. Usually everyone handles their own breakfast. When everyone is ready, you drive them to work or school.

After dropping everyone off, you go back home and tidy up, then spend the rest of the day writing. You had a surprising success a fair while ago, and followed it up with an even big hit. Lately you have been wanting to explore a different direction, but you are having a hard time escaping your comfort zone and really figuring out how to do something new.

You go pick everyone up when they are done work or school, and bring them back home. You or someone else makes dinner, but the washing up is someone else's chore.

In the evening, everyone mostly does their own thing. You read a lot of trashy World War II spy novels. At least once a week, you Skype with family back home, keeping up with your parents and cousins and all the goings-on.

On **Saturday** and **Sunday** you don't work, because that's when everyone else is home after spending most of the week at work or in school. You cherish this time and enthusiastically participate in whatever activities the group is most interest in.

Daily Routine

You usually get up in the morning earlier than everyone else. You make yourself tea and eat a muffin, and get breakfast ready for the others. There is a rush of activity in the morning as they get ready for the day, but you are able to step outside of the activity.

You say goodbye when everyone leaves in the morning, and then you go about your day. You do some chores and some errands, but you have a lot of free time. You have a lot of projects no one else really knows about, some of which have been going on for years. Some of the projects are hidden from everyone else, but some of them are just not noticed.

Sometimes you wish you had a more exciting life, like a character in swashbuckling adventure movies like *Mutiny on the Bounty* (Milestone, 1962) or *Swiss Family Robinson* (Annakin, 1960), and you daydream about this. But in reality, you think you probably couldn't handle that much hardship.

On **Tuesday** and **Thursday** afternoons you play tennis with friends, and you think you're quite good at it. You don't have a job, so your busiest times are on evenings and on **Saturday** and **Sunday**, when you spend more time in the company of other people.

Psalmody

Psalmody was written in fall term 2018, and will be performed on April 16, 2019. The piece had several revisions following the Quasar saxophone quartet residency visit to the University of Alberta in winter term 2018.

Psalmody was an extension of all the same processes used in *Pintuck Seams*. As with the string quartet, the piece started with ideas within an orbit of "traditional singing." The main areas of focus were the powerful blocky monophony of Gregorian chant, the lighter ornamented melodies of Georgian table singing, and the heterophony of church singing in the Scottish Outer Hebrides. The drone and antiphonal structure is typical not only of these singing practices, but also of many other folk and sacred singing traditions as well.

As in *Pintuck Seams*, two Euclidean rhythms with parameters chosen ahead of time were concatenated into one longer pattern. This longer pattern was then taken up as the rhythmic motive for all of the primary melodies in a given section.

In *Psalmody,* pitch started from a chosen mode. I imposed a set of rules that limited each step of the mode to being played only in certain octaves, which generated a longer, multi-octave melodic profile without strict octave equivalency. The "spinning out" of this melodic profile was a transformation performed on the mode itself, so the mode could be changed without disrupting the structure of the melodic profile.

To generate the material, a rhythmic motive was played at a given tempo. At each onset in the rhythm, a pitch from the melodic profile was chosen using a random walk. After four full cycles of the rhythmic motive were played through, a melody had been generated, and the process stopped.

The first melody was sung by the "cantor", the bass saxophone. After "lining in" the melody, the bass saxophone started a low drone. The rest of the saxophones come in and take turns singing their own melodies, each generated through the same process as the "cantor" melody was. The voices that were not singing the main melody or the drone supplied a harmonic background, filling in between the melody and the drone. After each voice had performed its melody individually, all of the voices repeated their melodies simultaneously. The melodies all have the same rhythm, so the final repeat was in a rhythmic unison, creating a monophonic effect.

The material in the contrasting fast middle section was created in basically the same way as in the first antiphonal sections, with some minor changes. The pitches in the middle section were still organized into a "melodic profile" as before, but instead of being generated from an underlying mode, they were generated from an underlying diatonic chord. The underlying chord itself moved through a diatonic progression and through some key changes as the piece progressed.

The slow final sections were constructed using primarily the same processes as the first antiphonal sections used, only each voice had its own rhythm, and the tempo was much slower.

Psalmody was given a reading by Quasar saxophone quartet during their residency at the University of Alberta in February 2019. Quasar's concerns were mostly with clarity of formatting and notation, but their read-through also revealed other changes to be made. Revisions made after the reading include transpositions of sections, key changes, changes to the tempos, the addition of more dynamics markings, changes to note beaming, the removal of one of the antiphonal sections, the combining of two other sections into a single one, and a change to the paper size. The name of the piece was also changed to better identify the roots of the piece, and the performance notes and program notes were updated to support the interpretation of the piece in the context of the new name.

Psalmody has a section in the performance notes labelled "hagiography". The hagiography section, along with the more eccentric performance indications in the score, are an attempt to bring the "writing for affect" idea from *Daily Routines* into the more formal chamber ensemble context. The hagiography section is meant for the players to read, with the intention that it will go some way toward illuminating how the piece is suppose to feel. Consider the hagiography section as a reflection of the structure of *Psalmody*.

psalmody

saxophone quartet

by

Thomas Merklinger

program notes

Catherine of Alexandria, patron saint of
Maidens, mechanics, Students, scholars /
Archivists, apologists, unmarried girls /
Stenographers, Philosophers, Knife sharpeners /
Wheelwrights, nurses /
Libraries and dying people

performance notes

- Focus on blending: always support each other sound.
- Focus on tuning: Allow the harmonies to transubstantiate into timbres.
- Always speak clearly: minimize vibrato.
- Always speak calmly: do not become overwhelmed in the loud parts: the loudness is not wild.
- The timing is critical: the relationships in the rhythms must be maintained: make sure you all feel the same pulse as much as possible: weft and weave, not zig and zag.
- The 32nd note phrases are all ornamentation and should be slurred together.
- The tempos are in a certain relationship, and these relationships should be kept in mind when performing the tempo changes:
    - ♩ = 160: Double-time
    - ♩ = 80: Normal-time
    - ♩ = 60: "Dotted half-time"
    - ♩ = 40: Half-time
- At the very end, the tempo is given as "as slow as possible": ♩ = 20 to ♩ = 35 is acceptable.

hagiography

Saint Catherine of Alexandria is an Eastern Orthodox saint, one of the Fourteen Holy Helpers.

In the year 305, as a teenager, Catherine went before the Roman Emperor Maxentius and challenged him over the persecution of Jews and Christians. Maxentius brought fifty of the best Roman philosophers to debate Catherine, but she spoke with eloquence, and converted the philosophers to Christianity. Enraged, Maxentius murdered the philosophers and ordered Catherine imprisoned, tortured, and starved, but angels attended to her wounds and doves brought her food. When Catherine did not perish, Maxentius ordered her put upon the breaking wheel, but she touched the wheel and it shattered and spun itself to pieces. Maxentius then tried to order Catherine beheaded, but before he could, Catherine ordered the execution herself. Her blood flowed out as a white oil which heals all wounds, and to this day it flows from the rock where her body was laid down. Over a millenia later, Catherine would visit Sainte Jeanne d'Arc in a holy vision.

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PSALMODY

1 ♩ = 80

Soprano Saxophone I

Soprano Saxophone II

Baritone Saxophone

Bass Saxophone

ad lib,
a proclamation

f

2 3 4 5

6

Sop. Sax.

Sop. Sax.

Bari. Sax.

Bass Sax.

great
stability

mp

7 8 9 *robust* 10 11

robust

mp

f

strong

p

12 13 14

Sop. Sax.

Sop. Sax.

Bari. Sax.

Bass Sax.

mp

f

15 16 17 18

Sop. Sax. *p* *mf*

Sop. Sax. *p* *mf*

Bari. Sax. *f*

Bass Sax. *mf*

19

20 21 22

Sop. Sax. *magnificent* *f*

Sop. Sax. *grandiose* *f*

Bari. Sax. *bombastic* *f*

Bass Sax. *grandiose* *f*

24

23 25 26 27 28

Sop. Sax.

Sop. Sax.

Bari. Sax.

Bass Sax. *ad lib, calm, refreshed* *p*

29 30 31 32 33 34

Sop. Sax.
Sop. Sax.
Bari. Sax.
Bass Sax.

with reverence
mf
with reverence
p
solemn
p
solemn
mp

35 36 37 38

Sop. Sax.
Sop. Sax.
Bari. Sax.
Bass Sax.

p
mf

39 40 41 42 43

Sop. Sax.
Sop. Sax.
Bari. Sax.
Bass Sax.

mp
mp
f

44 45 46 47 48 49

Sop. Sax. — *unanimity* — *f*

Sop. Sax. — *unanimity* — *f*

Bari. Sax. — *solidarity* — *f*

Bass Sax. — *solidarity* — *f*

50

51 52 53 54

Sop. Sax.

Sop. Sax.

Bari. Sax.

Bass Sax. — *ad lib, growing realization* — *pp* — *f* — *ff*

55

56 57 58 59 60 61

Sop. Sax. — *persevering* — *f*

Sop. Sax. — *persevering* — *p*

Bari. Sax. — *staunchly* — *p*

Bass Sax. — *stoic* — *mp*

62 63 64 65 66

Sop. Sax.

Sop. Sax.

Bari. Sax.

Bass Sax.

p

f

67 68 69 70 71

Sop. Sax.

Sop. Sax.

Bari. Sax.

Bass Sax.

p

mf

72 73 74 75 76 77

Sop. Sax.

Sop. Sax.

Bari. Sax.

Bass Sax.

f

ff

resolute

resolute

78

79 80 81 82

Sop. Sax.

Sop. Sax.

Bari. Sax.

ad lib,
exuberant

Bass Sax.

f

83 84 85 86 87

Sop. Sax.

Sop. Sax.

Bari. Sax.

Bass Sax.

88 89 90 *with enthusiasm* 91 92

Sop. Sax.

f

with
anticipation

Sop. Sax.

mp *mp*

with
anticipation

Bari. Sax.

mp

with
anticipation

Bass Sax.

mp

93 94 95 96

Sop. Sax.

Sop. Sax.

Bari. Sax.

Bass Sax.

mf

with enthusiasm

f

To Sop. Sax.

f

98 99 100

serene

rit.

Sop. Sax.

Sop. Sax.

Bari. Sax.

Bass Sax.

f

Soprano Saxophone

97

101 102 103 104

Sop. Sax.

Sop. Sax.

Sop. Sax.

Bass Sax.

mp

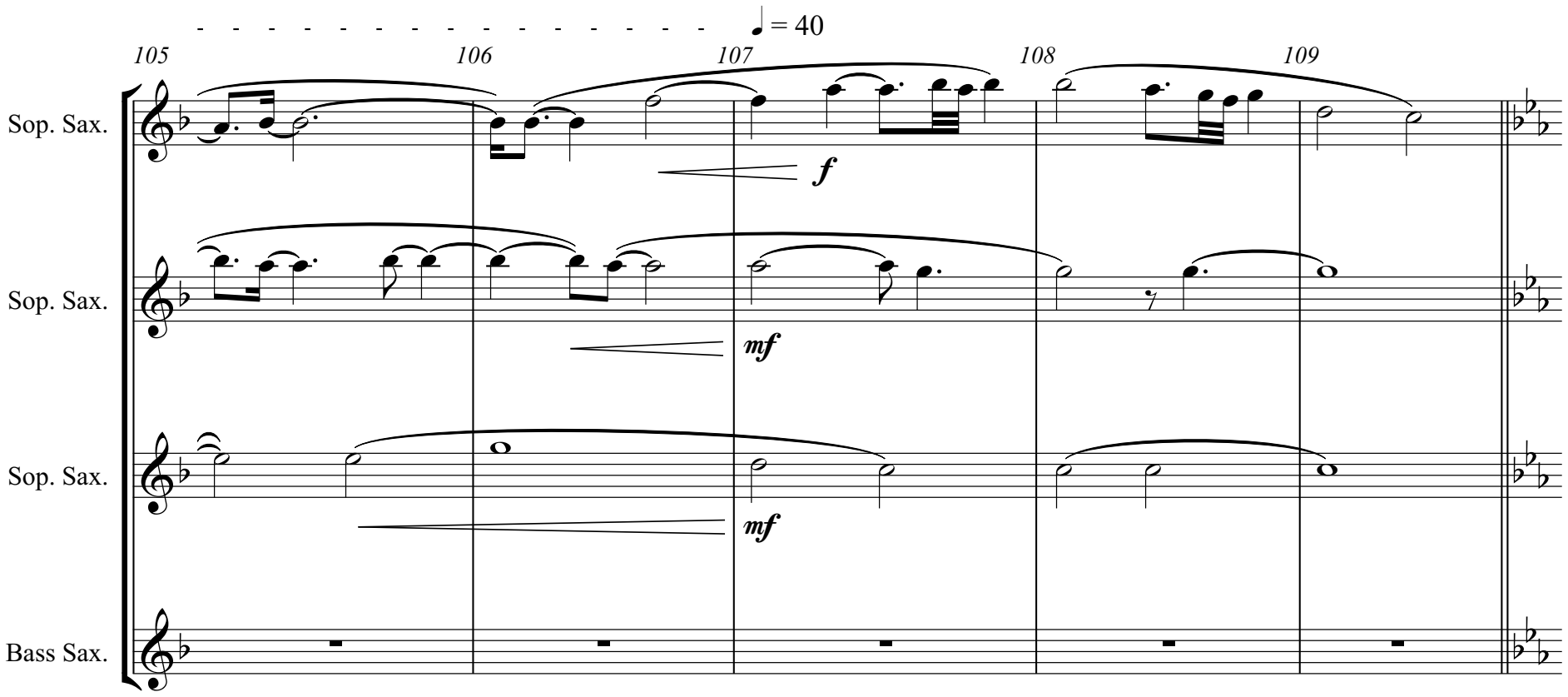
serene

p

mp

serene

mp


♩ = 40
105
106
107
108
109
Sop. Sax.
Sop. Sax.
Sop. Sax.
Bass Sax.
f
mf
mf
110
♩ = 160
spinning glass beads
111
112
113
114
Sop. Sax.
Sop. Sax.
Sop. Sax.
Bass Sax.
f
spinning glass beads
spinning glass beads
with great urgency
115
116
117
118
Sop. Sax.
Sop. Sax.
Sop. Sax.
Bass Sax.

119

120 121 122 123

Sop. Sax.
Sop. Sax.
Sop. Sax.
Bass Sax.

124 125 126 127

Sop. Sax.
Sop. Sax.
Sop. Sax.
Bass Sax.

128

129 130 131 132

mp

Sop. Sax.
Sop. Sax.
Sop. Sax.
Bass Sax.

133 134 135 136

Sop. Sax.
Sop. Sax.
Sop. Sax.
Bass Sax.

mp

137

138 139 140 141

Sop. Sax.
Sop. Sax.
Sop. Sax.
Bass Sax.

mf mf mf f

142 143 144 145

Sop. Sax.
Sop. Sax.
Sop. Sax.
Bass Sax.

ff ff ff ff

146

delicate — *147* — *148* — *149*

Sop. Sax. — *p*

Sop. Sax. — *delicate* — *p*

Sop. Sax. — *delicate* — *p*

Bass Sax. — *sweet and expressive* — *mf*

150 — *151* — *152* — *153* — *154*

Sop. Sax. — *mf* — *pp*

Sop. Sax. — *mf* — *pp* — *mf*

Sop. Sax. — *mf* — *p* — *pp* — *mf*

Bass Sax. — *f* — *mp* — *mf* — *mf*

155

156 — *157* — *158* — *159*

Sop. Sax. — *mf* — *mp* — *mf*

Sop. Sax. — *mp* — *mf*

Sop. Sax. — *mp* — *mp* — *mp*

Bass Sax. — *mp* — *f*

160 161 162 163

Sop. Sax.

Sop. Sax.

Sop. Sax.

Bass Sax.

ff

164

short and sweet 165 166 167 168

Sop. Sax.

p

short and sweet

Sop. Sax.

p

sharp
and airy

Sop. Sax.

p

Bass Sax.

169 170 171 172

Sop. Sax.

Sop. Sax.

Sop. Sax.

Bass Sax.

173 *bright and sprightly* 174 175 176 177

Sop. Sax. ***mf***

Sop. Sax. *solid and articulated* ***mp***

Sop. Sax. *solid and articulated* ***mp***

Bass Sax.

178 179 180 181

Sop. Sax.

Sop. Sax.

Sop. Sax.

Bass Sax.

182 *molto espressivo* 183 184 185 186

Sop. Sax. ***f***

Sop. Sax. *full and clear* ***mf***

Sop. Sax. *full and clear* ***mf***

Bass Sax.

187 188 189 190

Sop. Sax. *mf* *mp*

Sop. Sax. *mp* *p*

Sop. Sax. *mp* *p*

Bass Sax.

191

192 193 194 195

Sop. Sax. *mf*

Sop. Sax. *mp* *p*

Sop. Sax. *mp* *p*

Bass Sax.

196 197 198 199

Sop. Sax.

Sop. Sax.

Sop. Sax.

Bass Sax.

200

pure and smooth

Sop. Sax.

Sop. Sax.

Sop. Sax.

Bass Sax.

f

pure and smooth

pure and smooth

201 *202* *203* *204*

205 *206* *207* *208*

mp

209

210 *211* *212* *213*

mf

mf

f

mf

mp

214 215 216 217

Sop. Sax. *p* *ff*

Sop. Sax. *p* *ff*

Sop. Sax. *mp* *ff*

Bass Sax.

218

♩ = 60

219 220 221 222

Sop. Sax. *mf*

Sop. Sax. *mf*

To Bari. Sax. Bari. Sax

Sop. Sax.

Bass Sax. *mf*

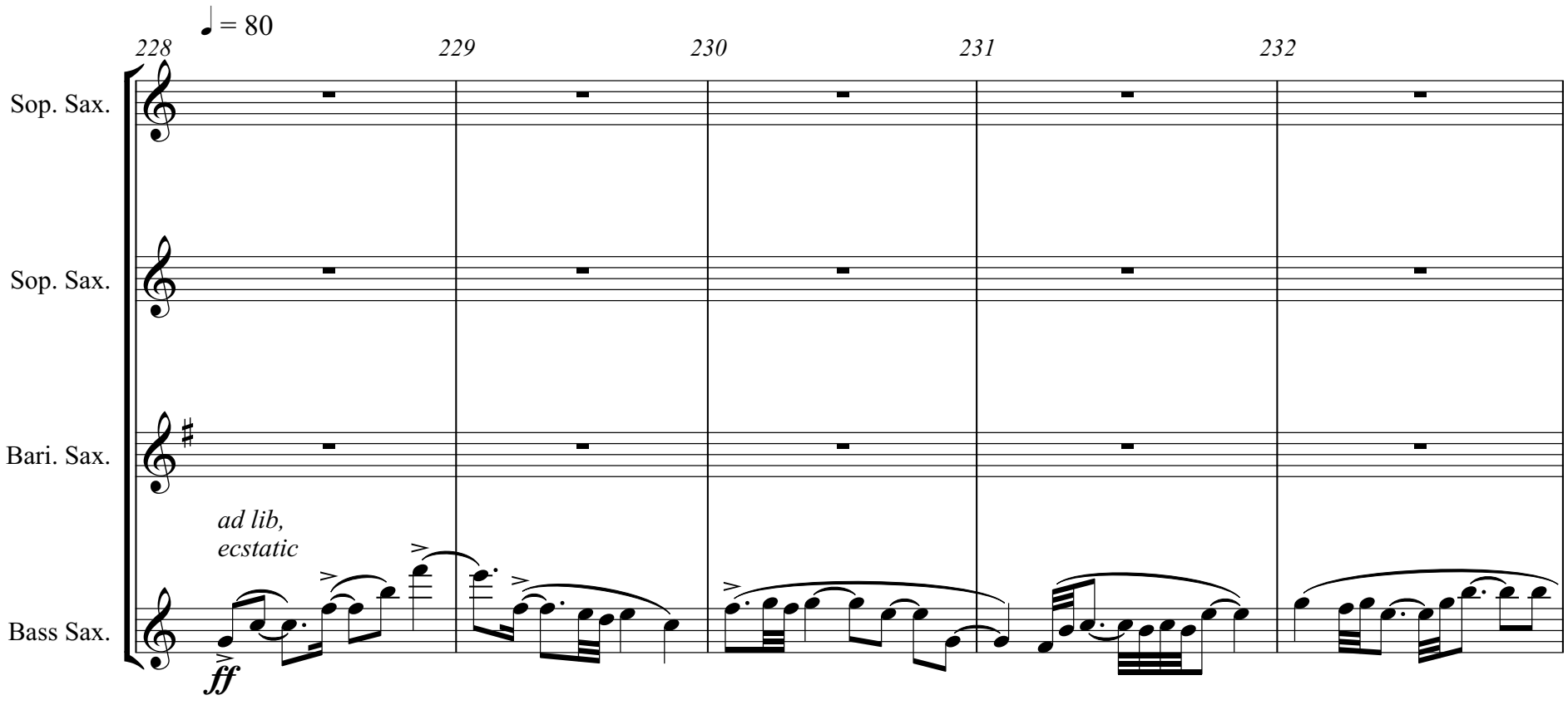
223 224 225 226 227

Sop. Sax.

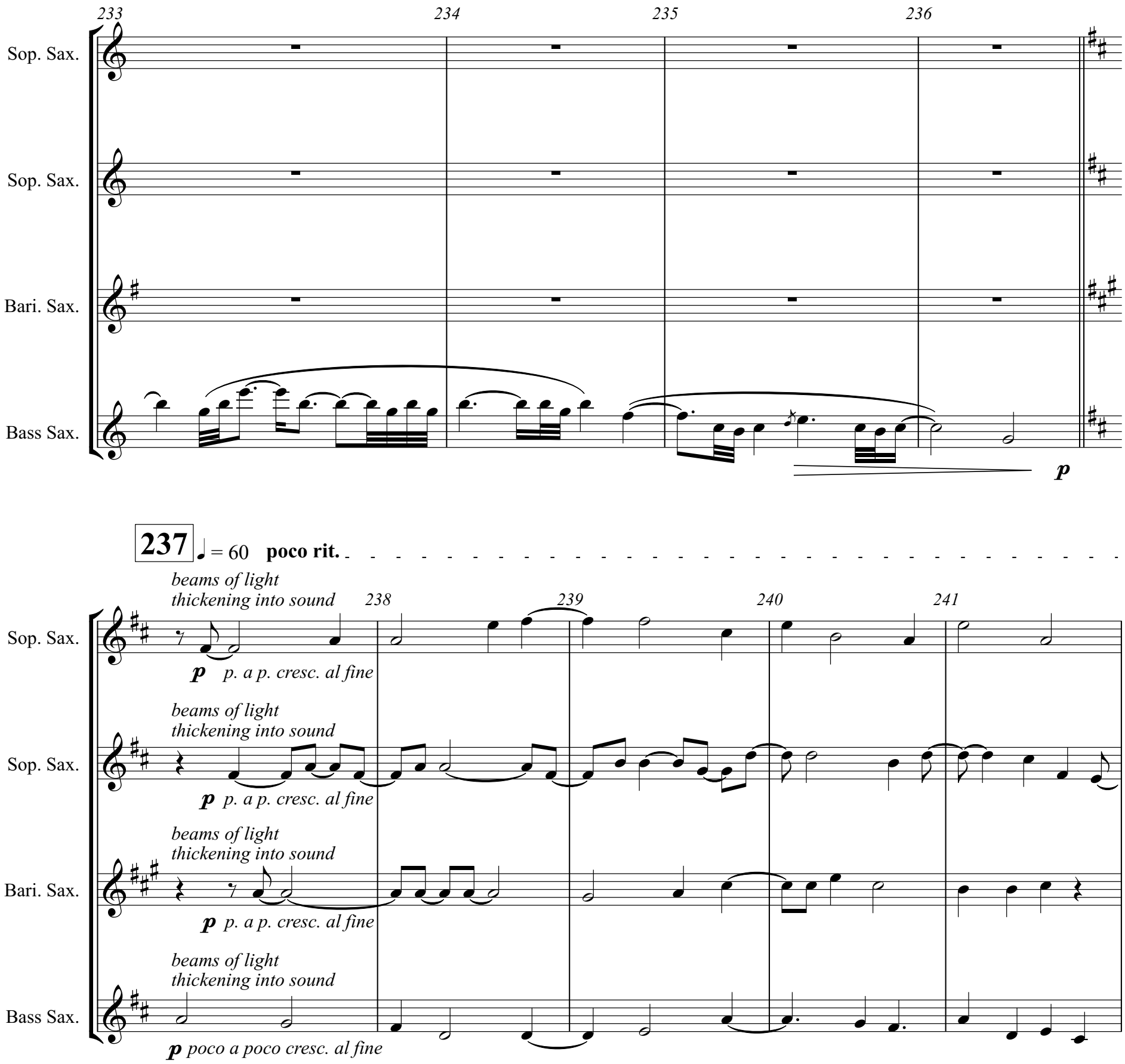
Sop. Sax. *mf*

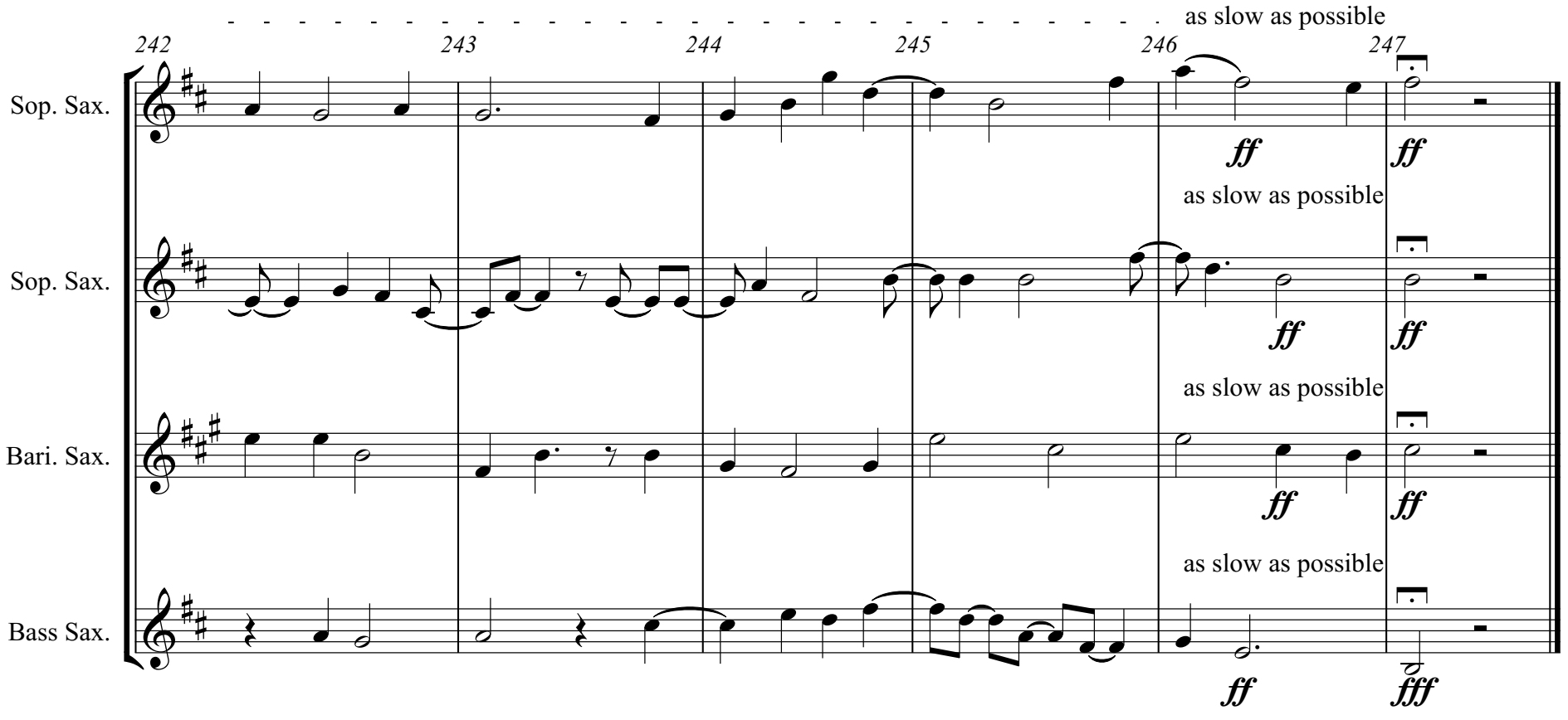
Bari. Sax. *mf*

Bass Sax. *f*



237 ♩ = 60 **poco rit.**




as slow as possible
242
243
244
245
246
247
Sop. Sax.
Sop. Sax.
Bari. Sax.
Bass Sax.
ff
fff

Appendix

List of the multimedia materials included in this portfolio:

2018-04-19 Graduate Composers - 04 Thomas Merklinger - Three Stages (2018) for violin + electronics.wav

Audio recording of the premiere performance of the piece *Three Stages*, performed at Convocation Hall on April 19, 2018. Performed by violinist Yue Deng, with composer Thomas Merklinger controlling the Max/MSP patch and electronic sound component.
https://doi.org/10.7939/r3-c288-fv77

Three Stages Max Patch.zip

This compressed archive file is a folder which contains the Max/MSP patch component of the score for *Three Stages*, as well as the wave file audio assets that the patch needs in order to produce sound.
https://doi.org/10.7939/r3-c288-fv77

2018-04-19 Graduate Composers - 05 Thomas Merklinger - Pintuck Seams (2018) for string quartet.wav

Audio recording of the premiere performance of the piece *Pintuck Seams*, performed at Convocation Hall on April 19, 2018. Performed by a string quartet made up of violinist Yue Deng, violinist Sylvia Chow, violist Leanne Maitland, and cellist Amy Nicholson, with conductor Andriy Talpash.
https://doi.org/10.7939/r3-h8a8-eq21

2018-04-16 260,470,570-cntmpo-xime - 10 Tom Merklinger - Daily Routines (audio).wav

Audio recording of the premiere performance of the piece *Daily Routine*s, performed at Convocation Hall on April 16, 2018. Performed by the University of Alberta Experimental Improv Ensemble, with performers Nicolás Arnáez, Malaya Bishop, Ashley Weckesser, Rio Houle, Jackson Hunter, Greg Mulyk, Sean Borle, and Thomas Merklinger.
https://doi.org/10.7939/r3-ff70-a112

2018-04-16 260,470,570-cntmpo-xime - 10 Tom Merklinger - Daily Routines (video).mp4

Video recording of the premiere performance of *Daily Routines*.
https://doi.org/10.7939/r3-kzgj-jk85

Pending - recording of *Psalmody*, from the April 16, 2019 premiere.

Audio recording of the premiere performance of the piece *Psalmdy*, to be performed at Convocation Hall on April 16, 2019. Performed by the Edmonton Saxophone Quartet, with Allison Balcetis, Charles Stolte, Raymond Baril, and Lee Meng Low.

Bibliography

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Toussaint, Godfried. *The Euclidean algorithm generates traditional musical rhythms.* Proceedings of BRIDGES: Mathematical Connections in Art, Music and Science, Banff, Alberta, Canada (2005). 47-56. http://cgm.cs.mcgill.ca/~godfried/publications/banff.pdf