

Bass Lines and Harmonic Structure

The nature of the lowest voice and its relationship to harmonic structure

Three Fundamental Classes

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- Tonic (T) class

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- ! Tonic (T) class
- ! Intermediate (int) or “predominant” class

Three Fundamental Classes

- ! Tonic (T) class
- ! Intermediate (int) or “predominant” class
- ! Dominant (D) class

Tonic (T) Class

Tonic (T) Class

I - I6

Tonic (T) Class

I - I₆

- Two chords, but just a prolongation of one tonic idea

Tonic (T) Class

I - I⁶

Two chords, but just a prolongation of one tonic idea

I - vii⁶ - I⁶

Tonic (T) Class

I - I⁶

Two chords, but just a prolongation of one tonic idea

I - vii⁶ - I⁶

Adds a passing chord between I and I⁶, connecting the root and third of the tonic

Intermediate (int) Class

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IV - ii6 - V

Intermediate (int) Class

IV - ii⁶ - V

- The two intermediate chords (descending root) prepare the dominant

Intermediate (int) Class

IV - ii⁶ - V

- The two intermediate chords (descending root) prepare the dominant
- I - vi - IV

Intermediate (int) Class

IV - ii⁶ - V

The two intermediate chords (descending root) prepare the dominant

I - vi - IV

The vi acts both as a prolongation of T and a bridge into the int chord as well

Chord and Harmony

Chord and Harmony

- ! Schenkerian analysis makes a distinction between *chord* and *harmony*
 - ! The *chord* is the actual labelled harmonic event

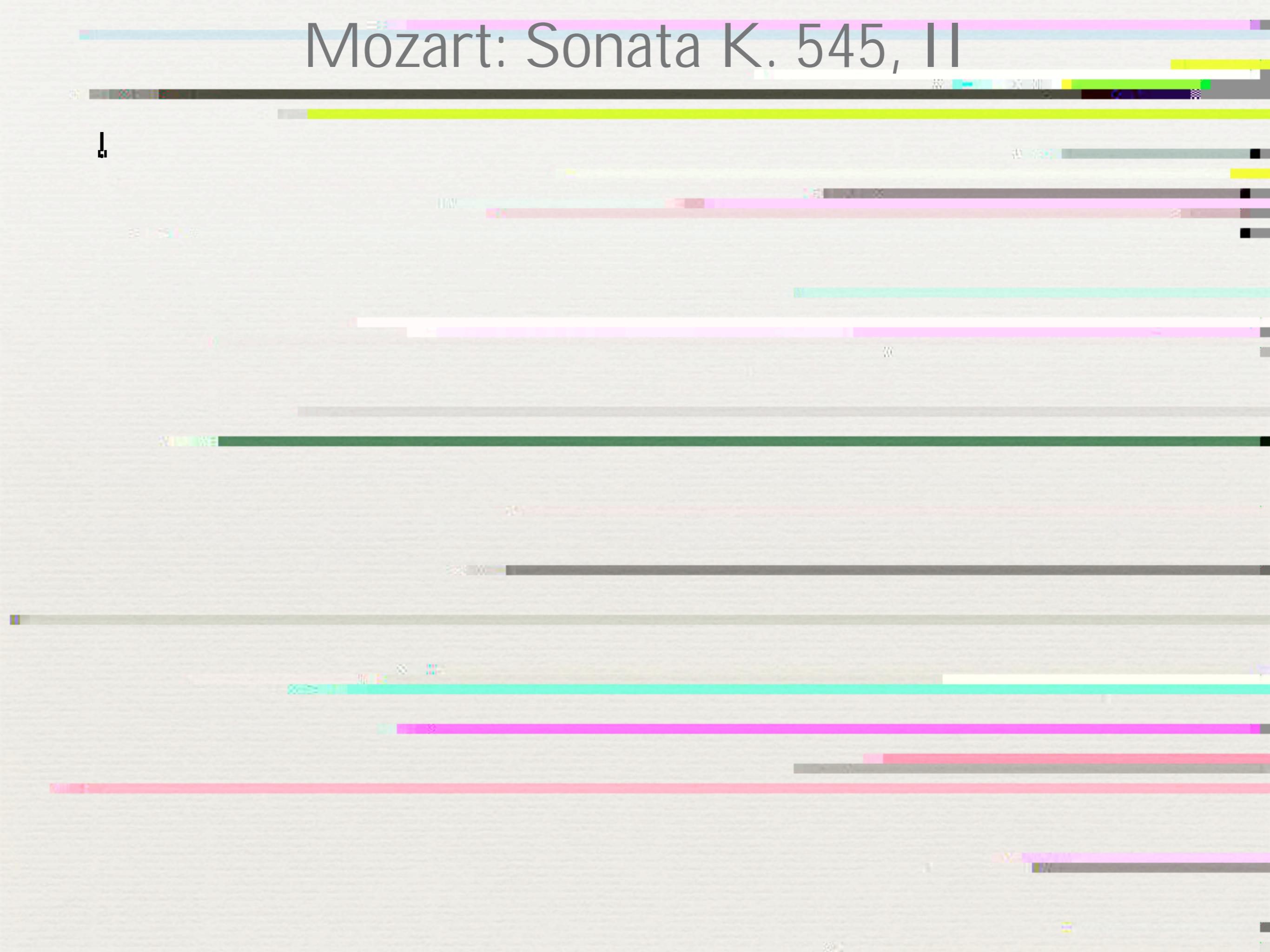
Chord and Harmony

- ! Schenkerian analysis makes a distinction between *chord* and *harmony*
 - ! The *chord* is the actual labelled harmonic event
 - ! The *harmony* is the overall function of that harmonic event, viewed either singly but more often together with other chords as a larger unit

Mozart: Sonata K. 545, II

- The V43 on the third beat provides harmonic variety, but it also serves to *prolong*

Mozart: Sonata K. 545, II



Mozart: Sonata K. 545, II

I



- The 6-4 chord in bar three is a *neighboring* 6-4, an embellishment which serves to prolong the tonic

Mozart: Sonata K. 545, III

A musical score for two staves. The top staff has a key signature of one sharp, indicated by a '#'. The bottom staff has a key signature of one sharp, indicated by a '#'. Both staves have a common time signature. The music consists of two measures. The first measure contains several eighth-note patterns, some with horizontal dashes and vertical stems, and some with horizontal dashes and vertical stems. There are also some eighth-note pairs. The second measure continues this pattern. Various markings are present: a dollar sign (\$) with a vertical line, a percentage sign (%), an ampersand (&), an exclamation mark (!), and a double ampersand (&&). In the second measure, there are two 'IN' markings above the staff and two 'P' markings above the staff. The bottom staff also features a green bar at the end of the second measure.

I

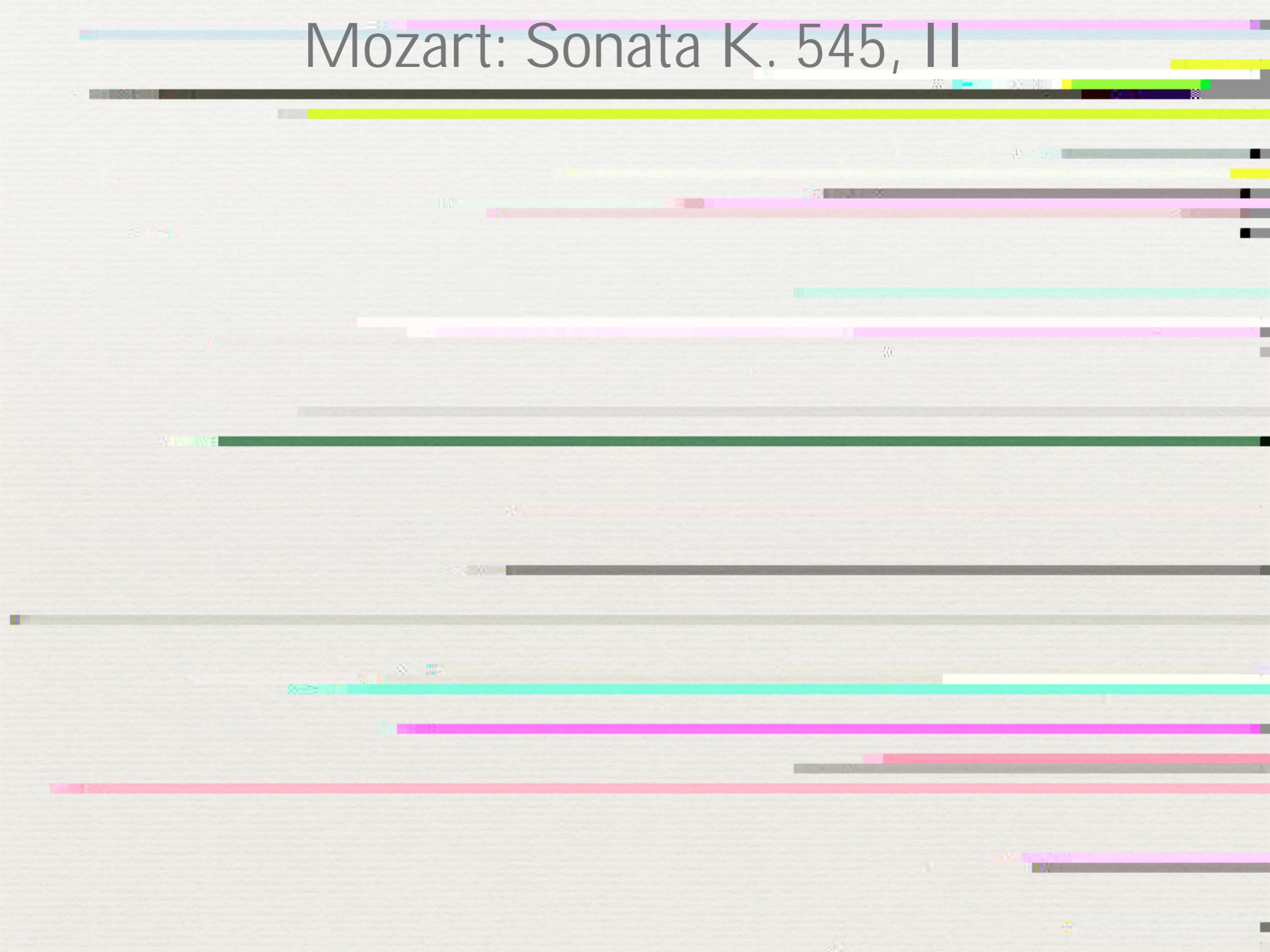
Mozart: Sonata K. 545, III

The image shows two staves of musical notation from Mozart's Sonata K. 545, III. The top staff is in G major (indicated by a sharp sign) and the bottom staff is in A major (indicated by a sharp sign). Both staves feature a basso continuo style with a bass line and a harmonic foundation. Various performance markings are present, including '&' symbols, 'IN' (indicando), and 'P' (pizzicato). The music consists of six measures per staff, separated by vertical bar lines.

I

- The reduced analysis here shows the neighboring functions of the V43, IV64, and common-tone diminished chords

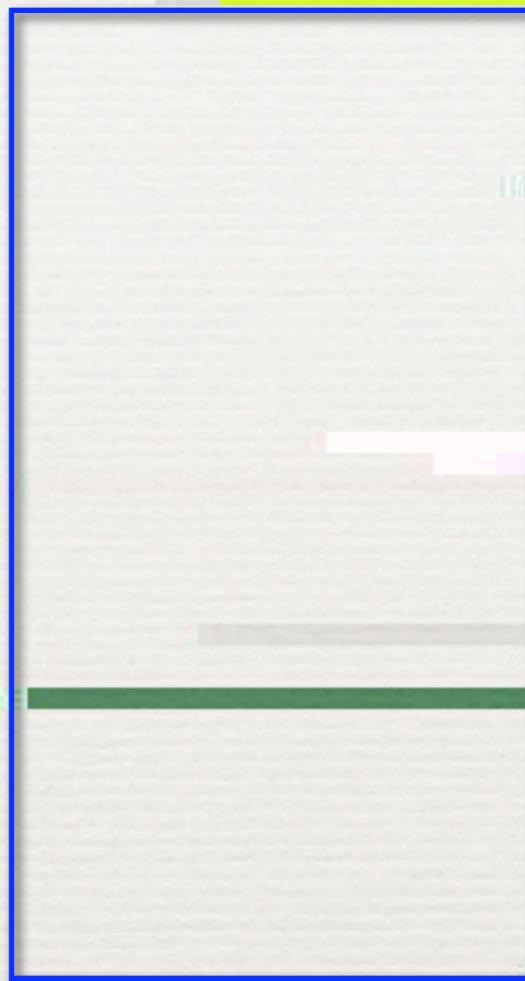
Mozart: Sonata K. 545, II



Mozart: Sonata K. 545, II

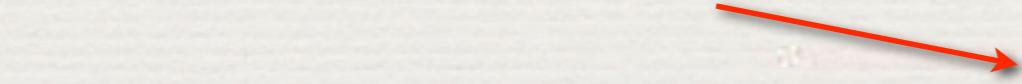
! Bars 5-6 display a continuation of the tonic prolongation

Mozart: Sonata K. 545, II



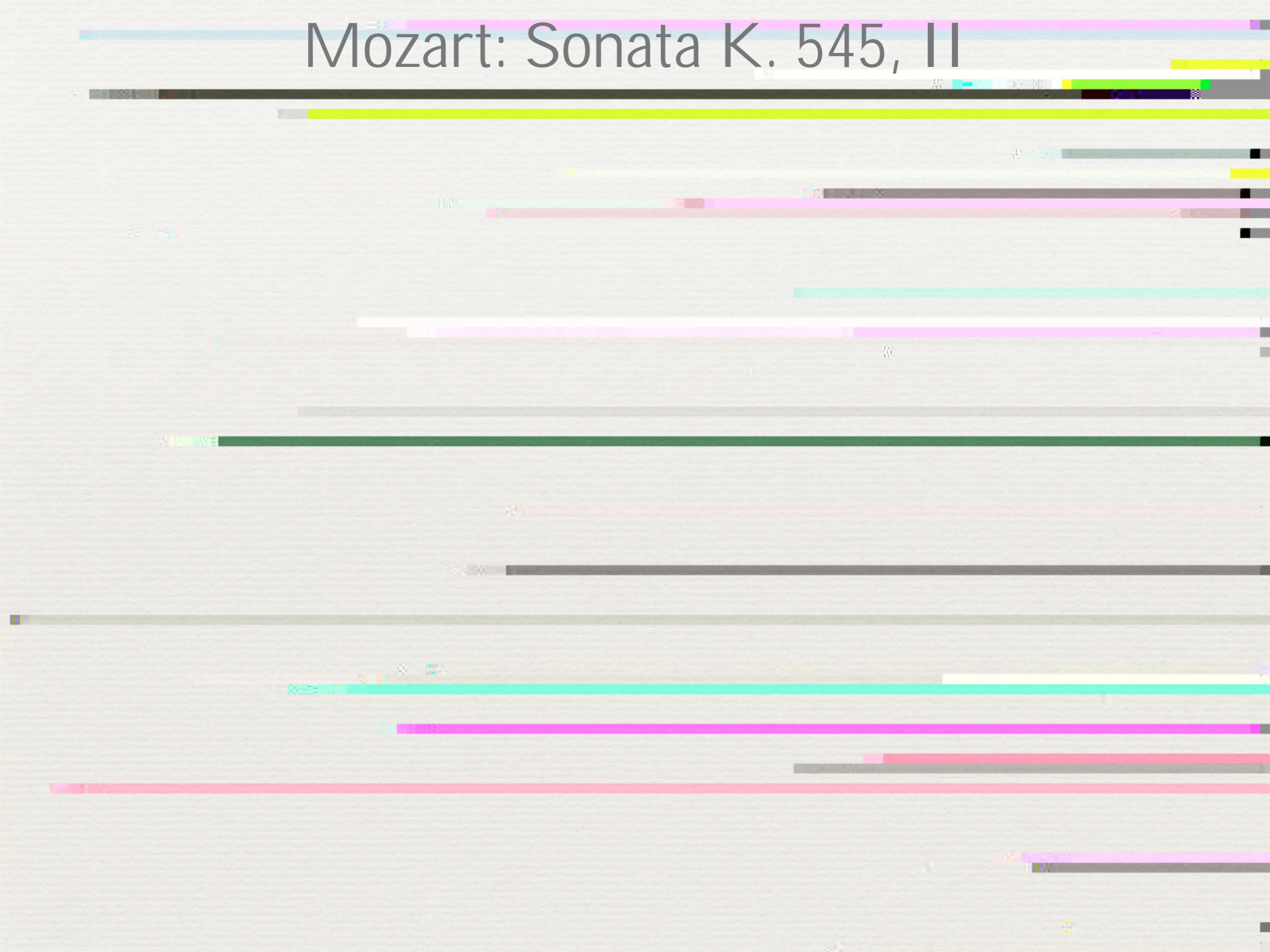
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- ! The neighboring V43 is repeated in bar 5

Mozart: Sonata K. 545, II



- ! Bars 5-6 display a continuation of the tonic prolongation
- ! The neighboring V43 is repeated in bar 5
- ! In bar 6, a motion from I through vi moves to I6—this is essentially the same motion as if moving upwards from I to I6.

Mozart: Sonata K. 545, II



Mozart: Sonata K. 545, II



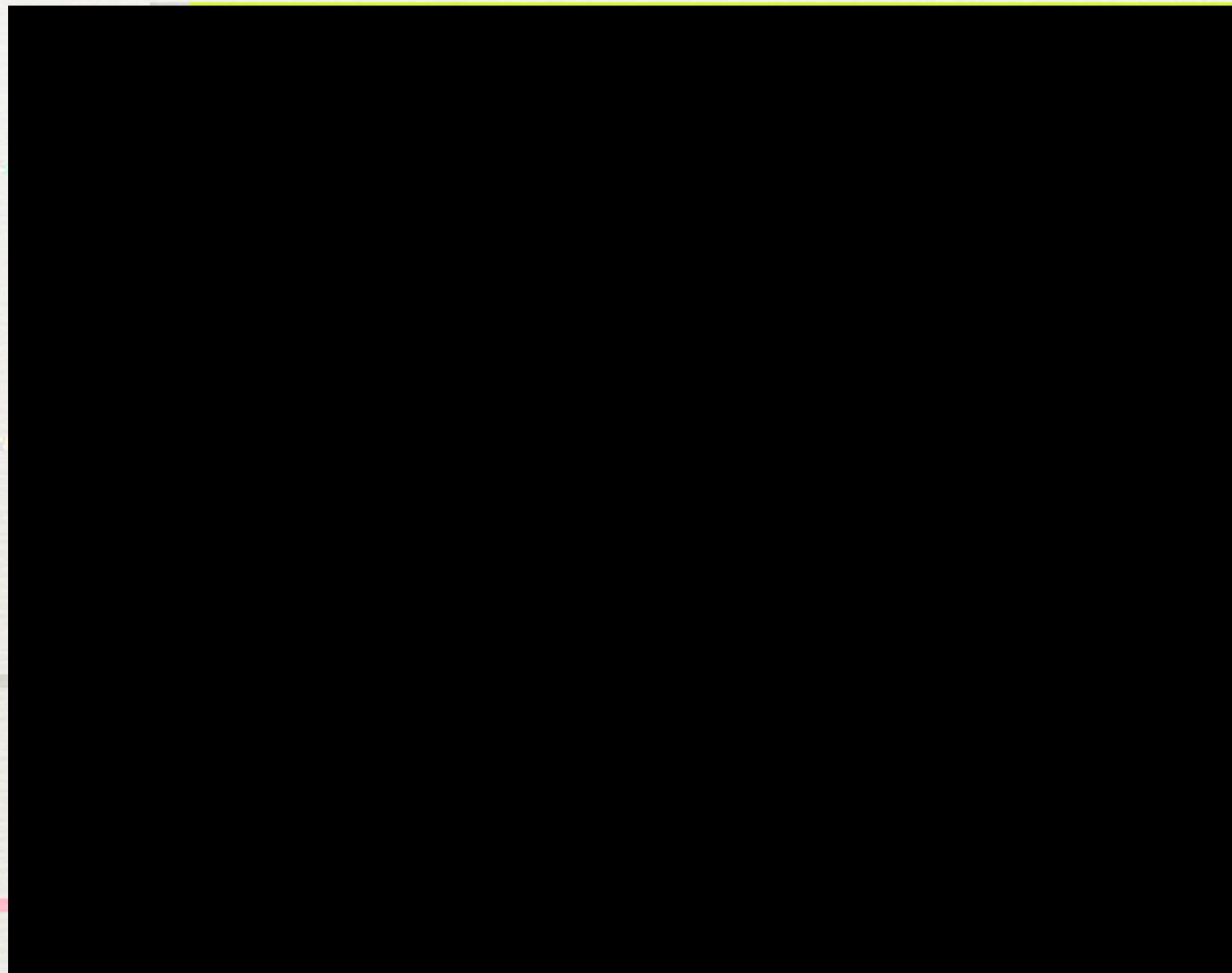
- Bar 7 is *intermediate* harmony—a “predominant” function leading us to the

Mozart: Sonata K. 545, II

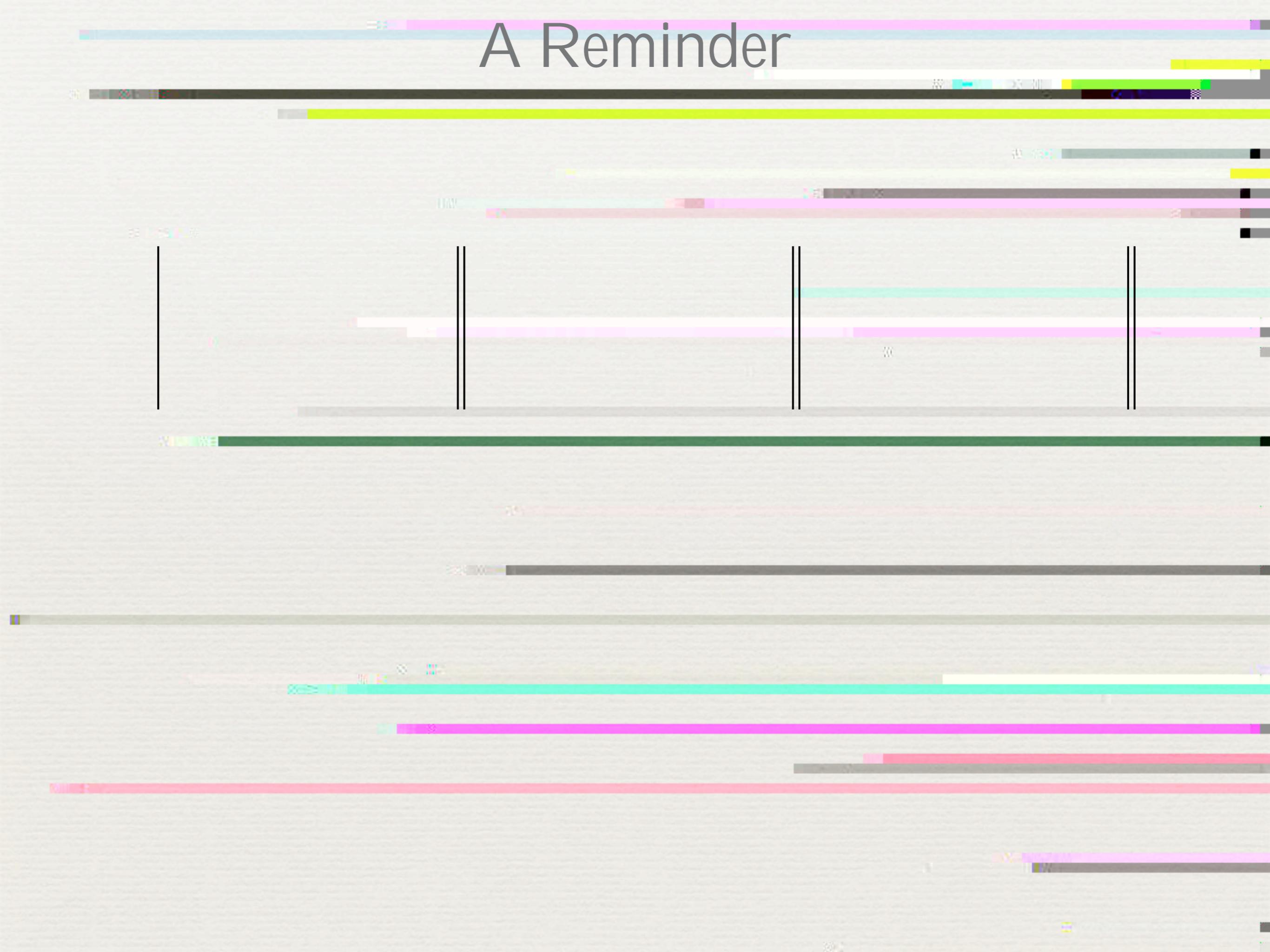


- ! Bar 7 is *intermediate* harmony—a “predominant” function leading us to the
- ! half-cadence in bar 8 and the *dominant* harmony

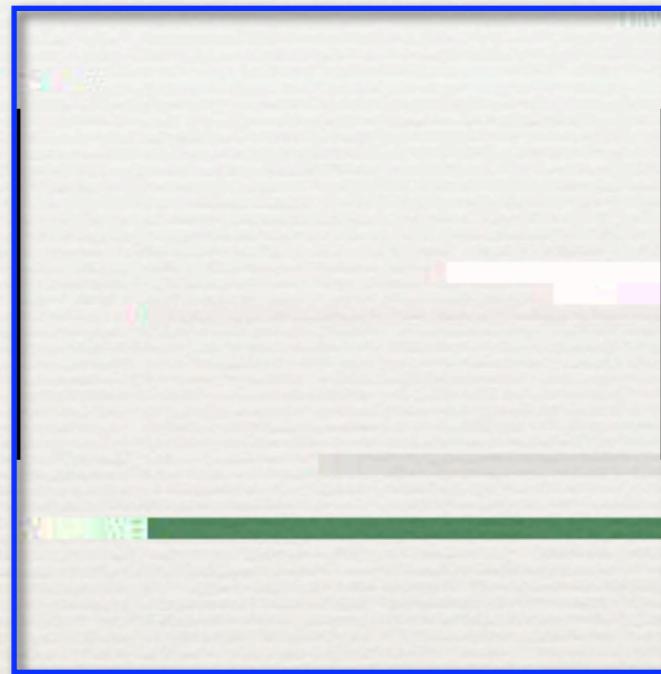
Mozart: Sonata K. 545, II



A Reminder



A Reminder



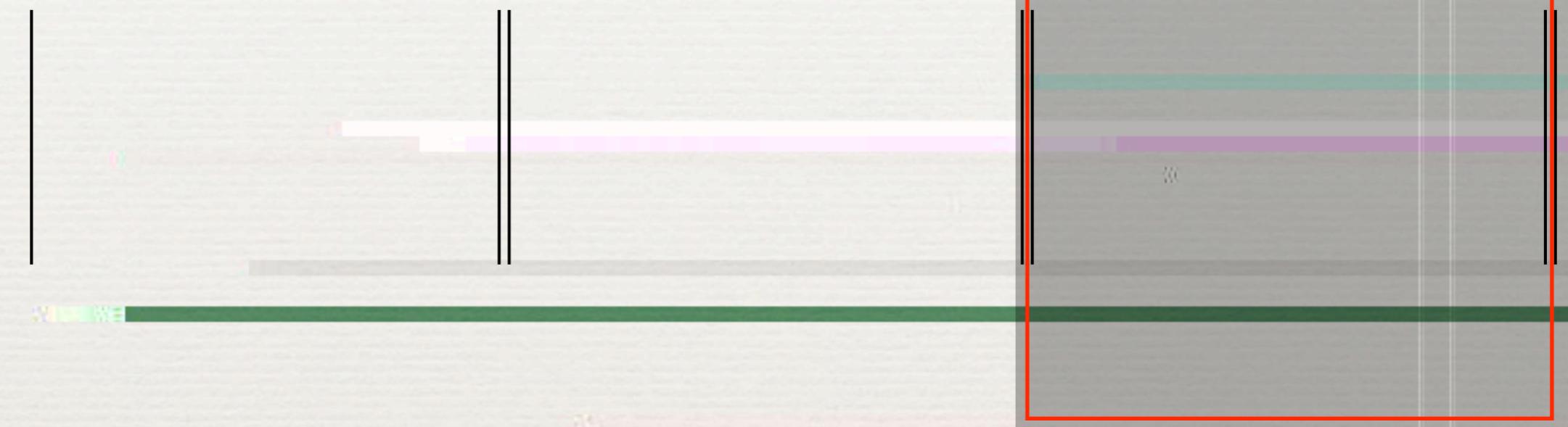
The cadential six-four is really an intensified dominant

A Reminder



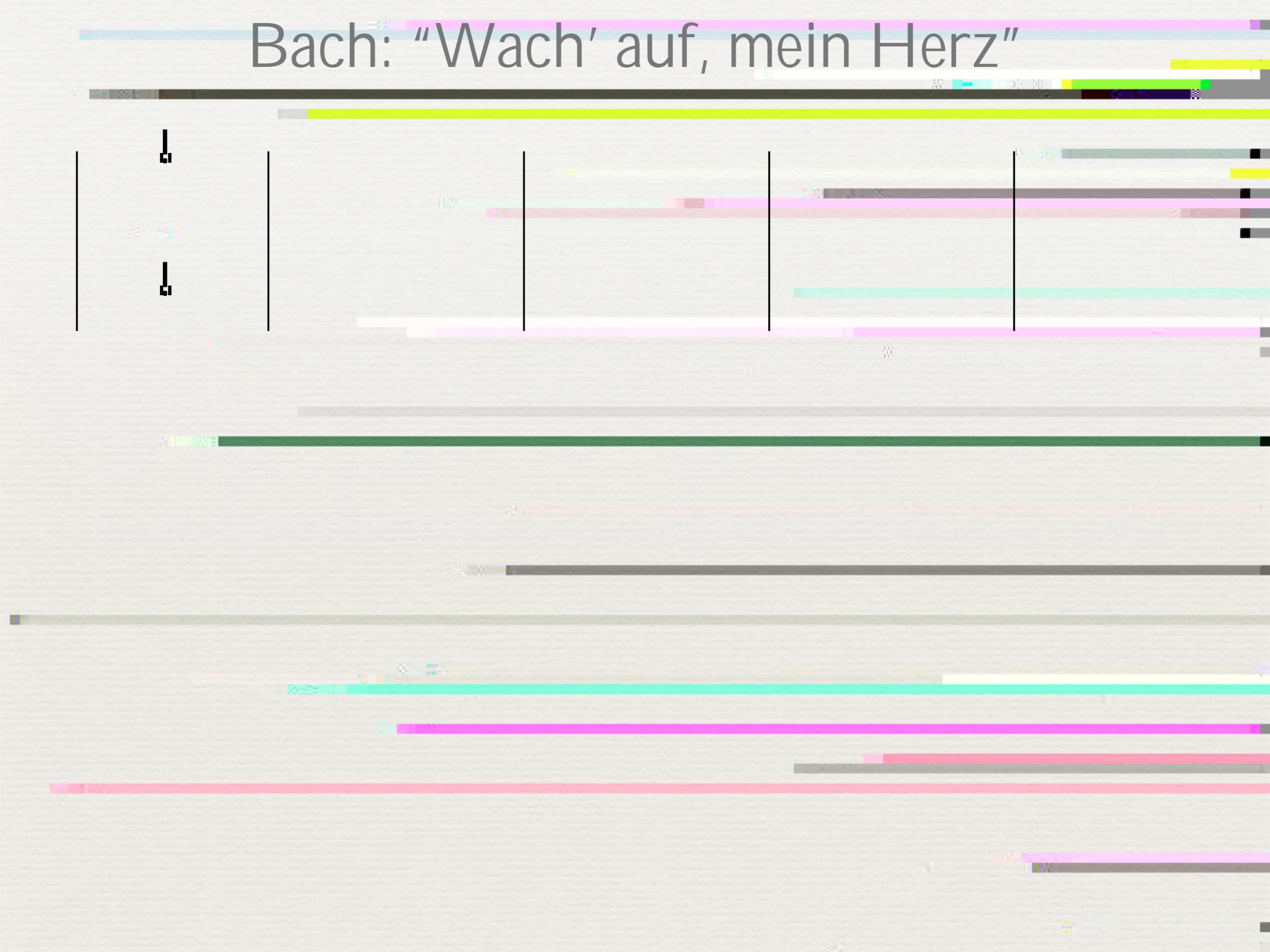
- The cadential six-four is really an intensified dominant
- Therefore, the notation which analyzes it as a dominant with non-chord tones resolving to chord tones is more descriptive than

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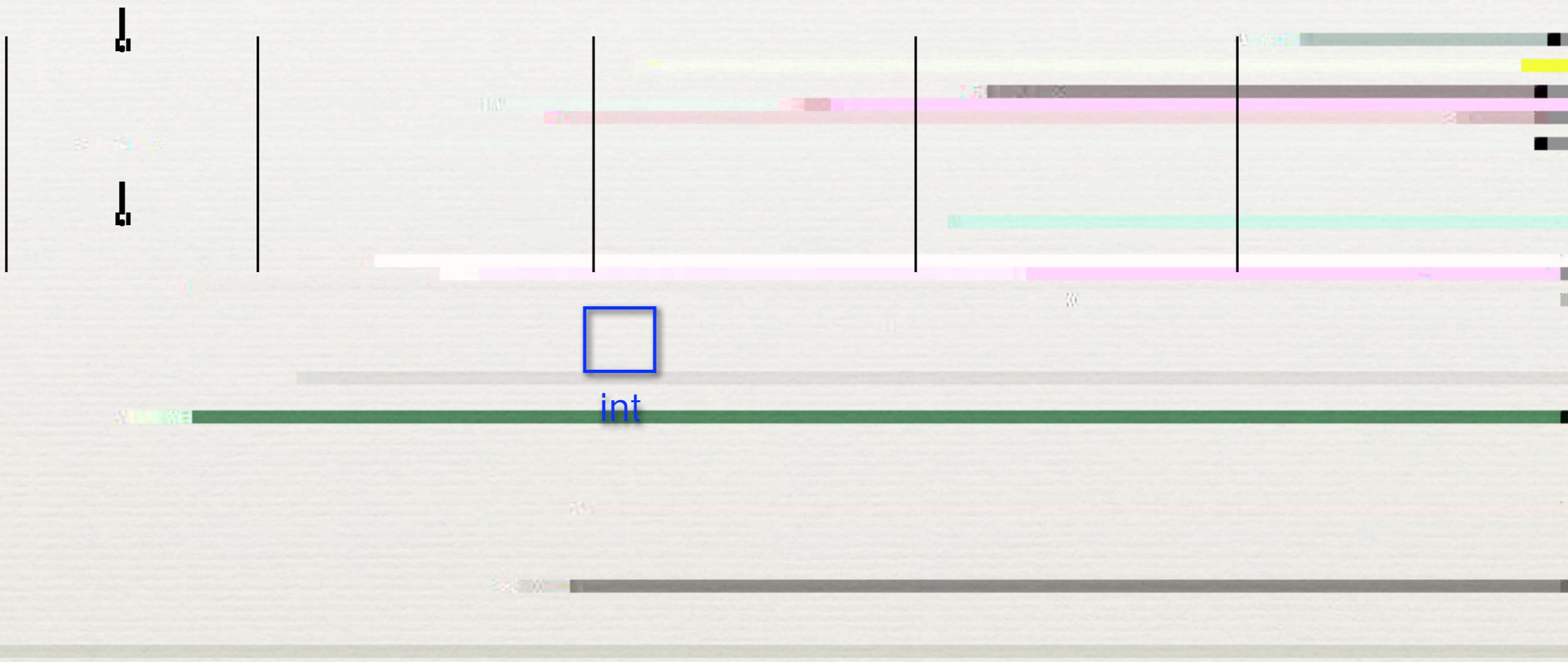


- The cadential six-four is really an intensified dominant
- Therefore, the notation which analyzes it as a dominant with non-chord tones resolving to chord tones is more descriptive than
- the more logically-correct notation

Bach: "Wach' auf, mein Herz"

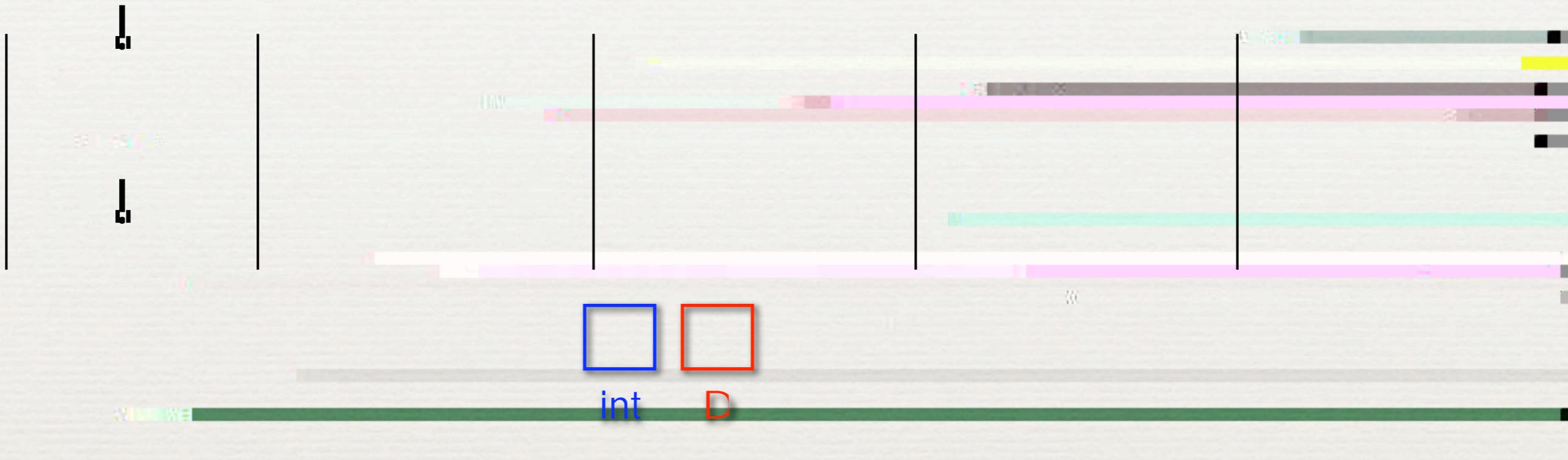


Bach: "Wach' auf, mein Herz"



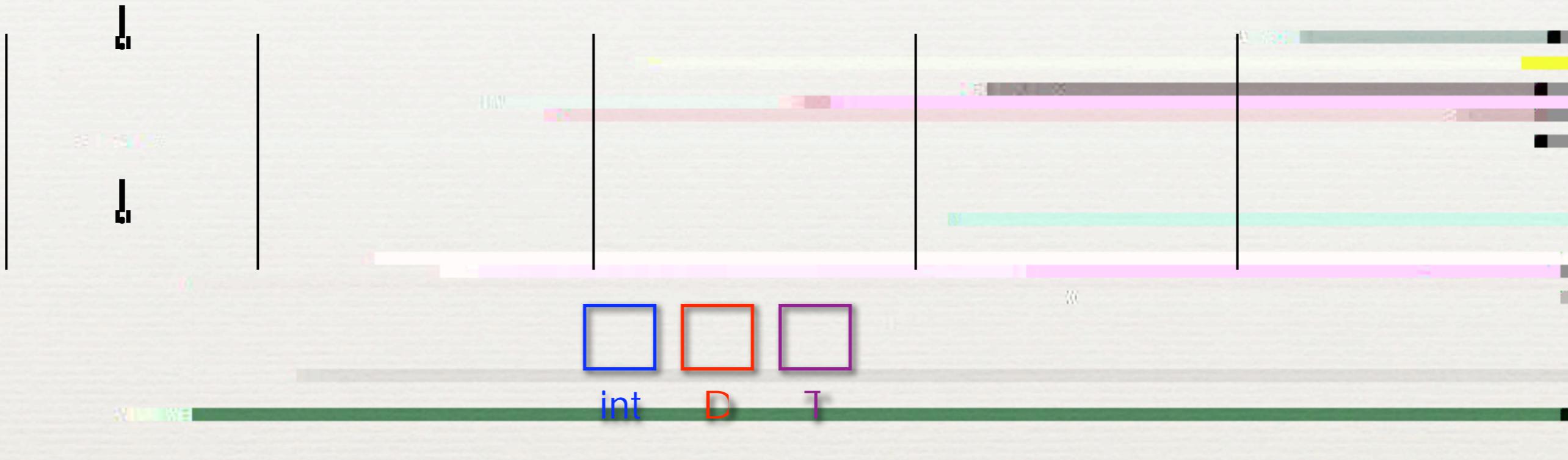
- At first glance, one might think that the IV in bar 2 is the *intermediate*, or predominant, chord

Bach: "Wach' auf, mein Herz"



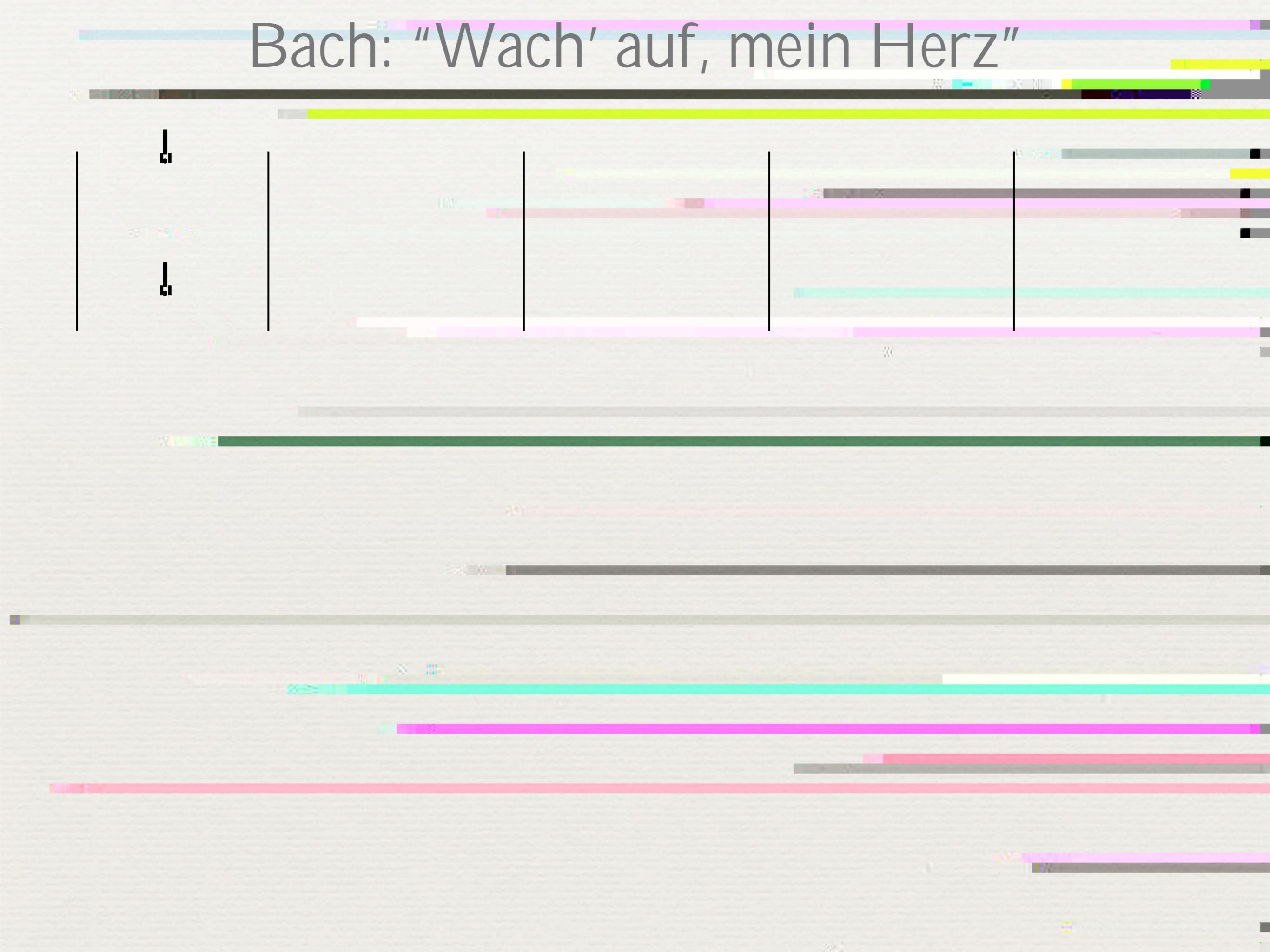
- ! At first glance, one might think that the IV in bar 2 is the *intermediate*, or predominant, chord
- ! It is followed by a **dominant**

Bach: "Wach' auf, mein Herz"



- At first glance, one might think that the IV in bar 2 is the *intermediate*, or predominant, chord
 - It is followed by a **dominant**
 - The dominant then resolves to a **tonic**.

Bach: "Wach' auf, mein Herz"

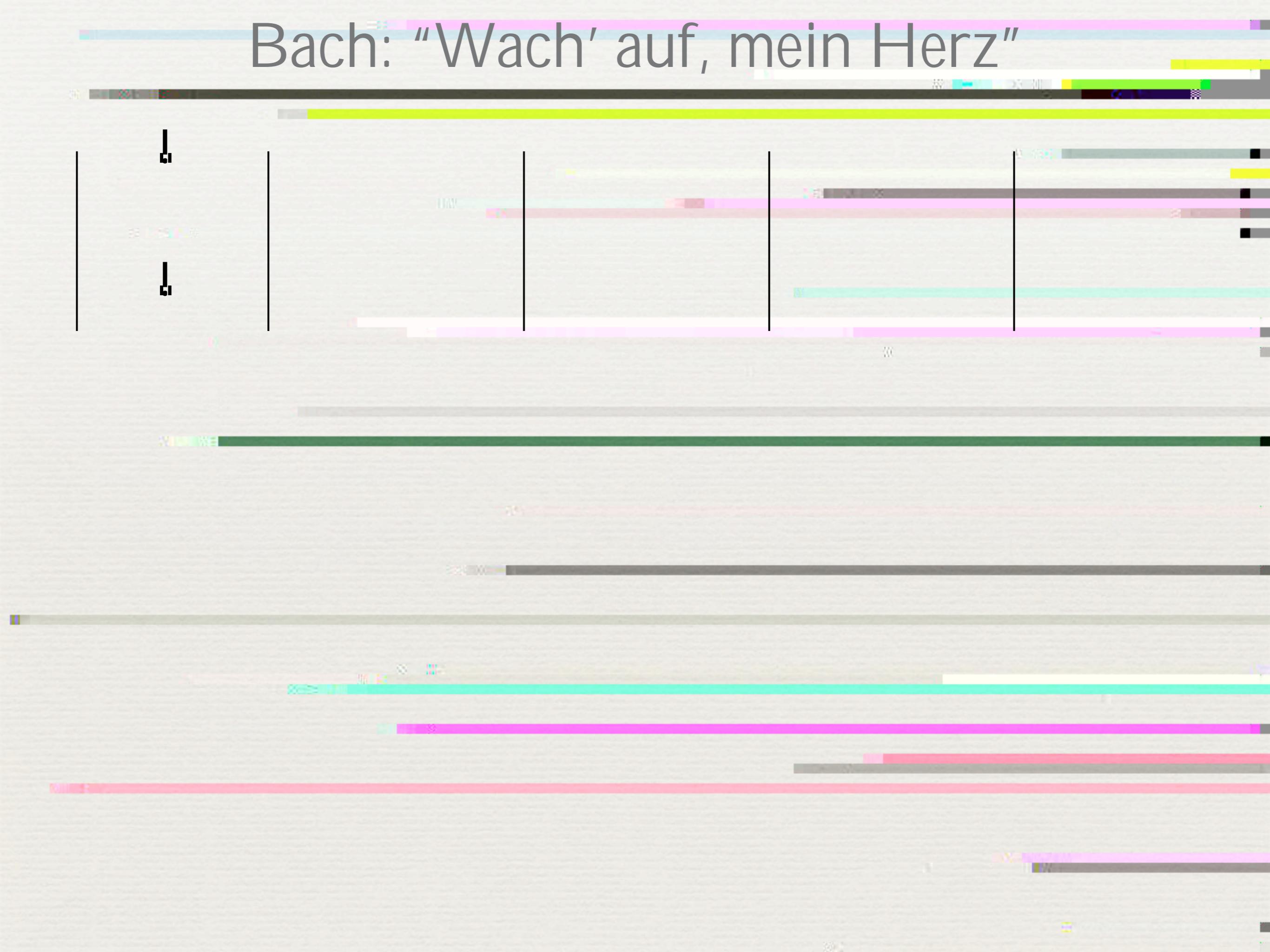


Bach: "Wach' auf, mein Herz"

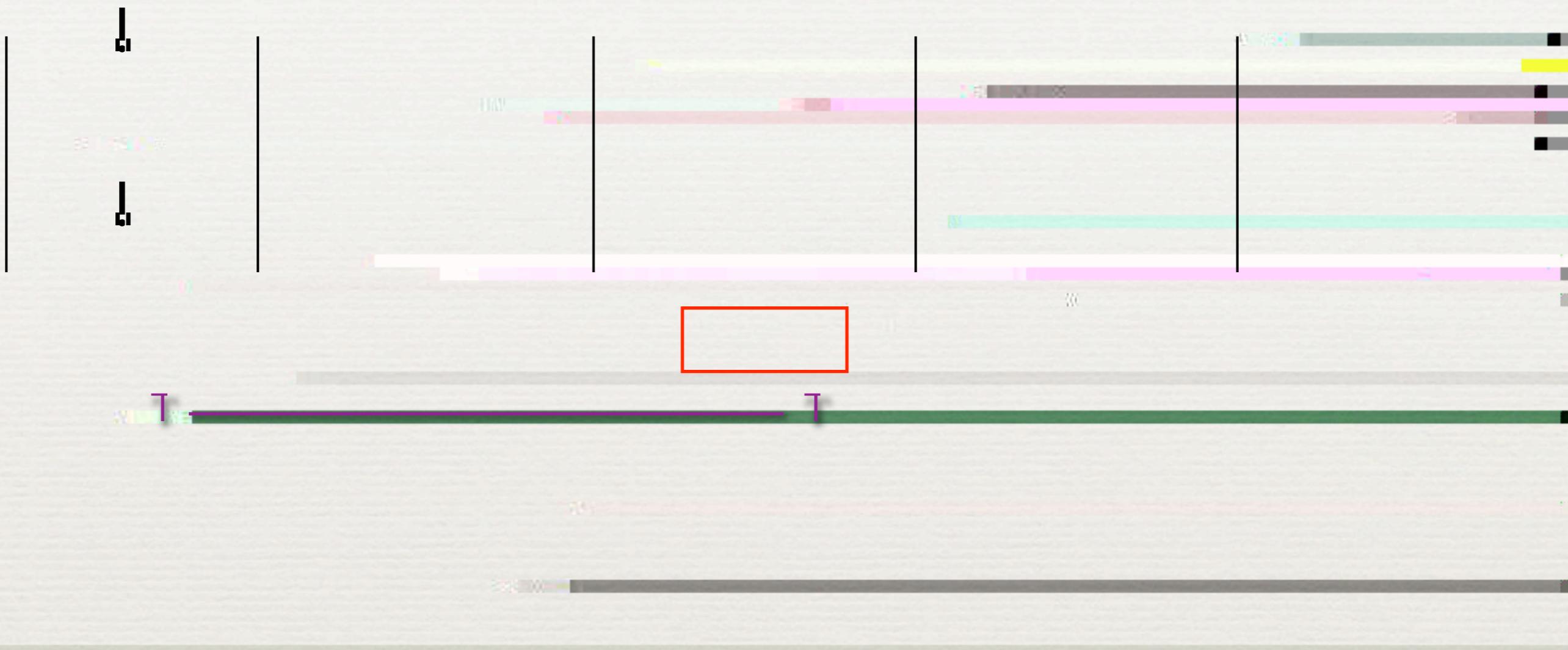


- ! However, the opening tonic is actually *prolonged* over two measures, extending from the upbeat to the third beat of measure 2

Bach: "Wach' auf, mein Herz"

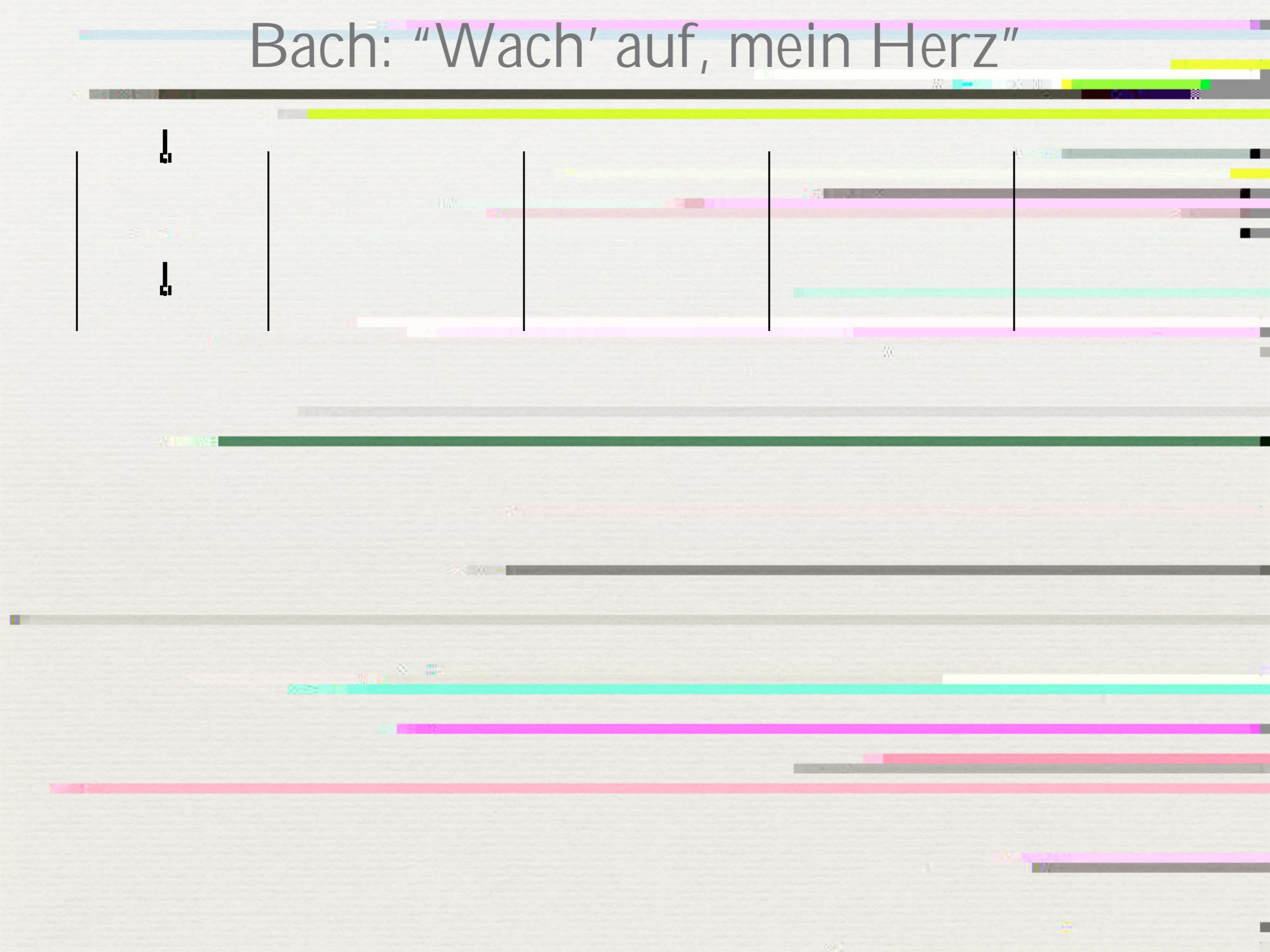


Bach: "Wach' auf, mein Herz"

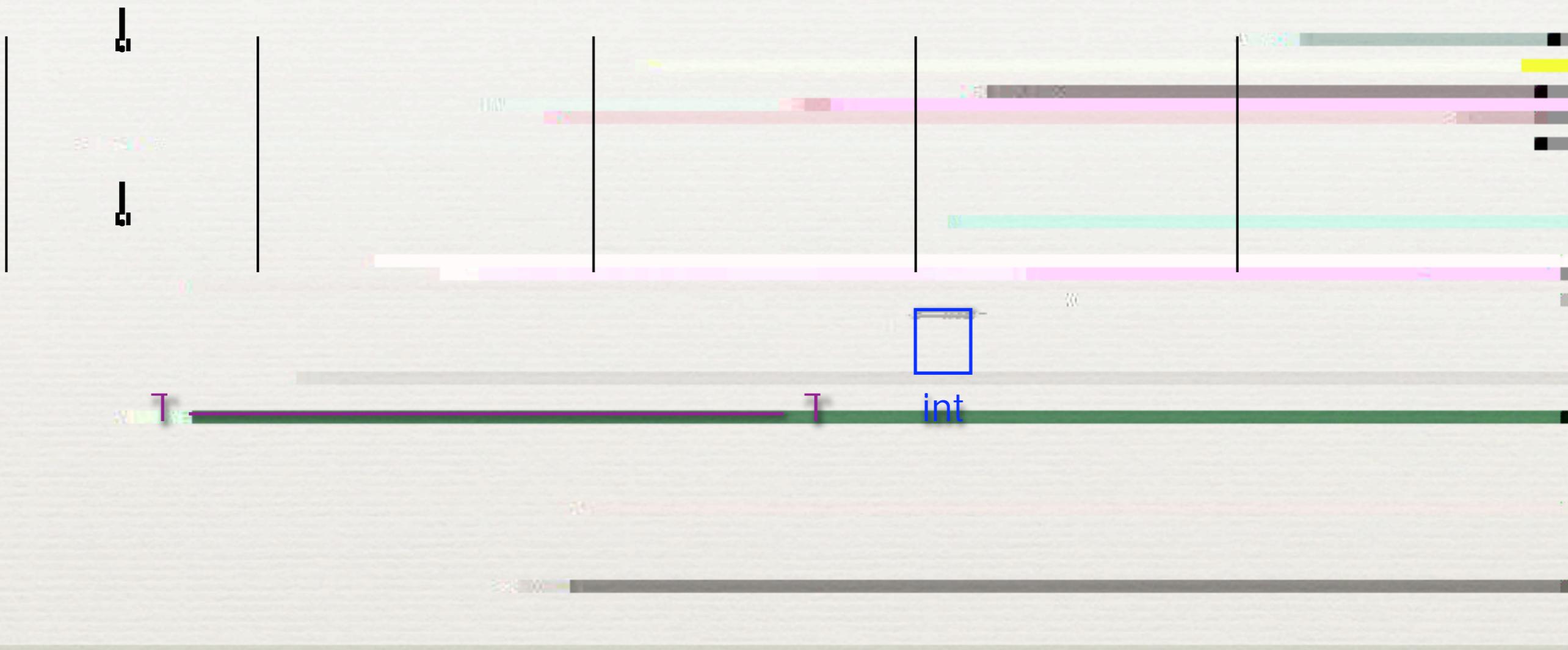


- What appears at first to be a cadence in bar 2 is an *evaded* cadence (or an *implied*) cadence, a technique used specifically to extend ideas—i.e., it's a prolongation technique.

Bach: "Wach' auf, mein Herz"



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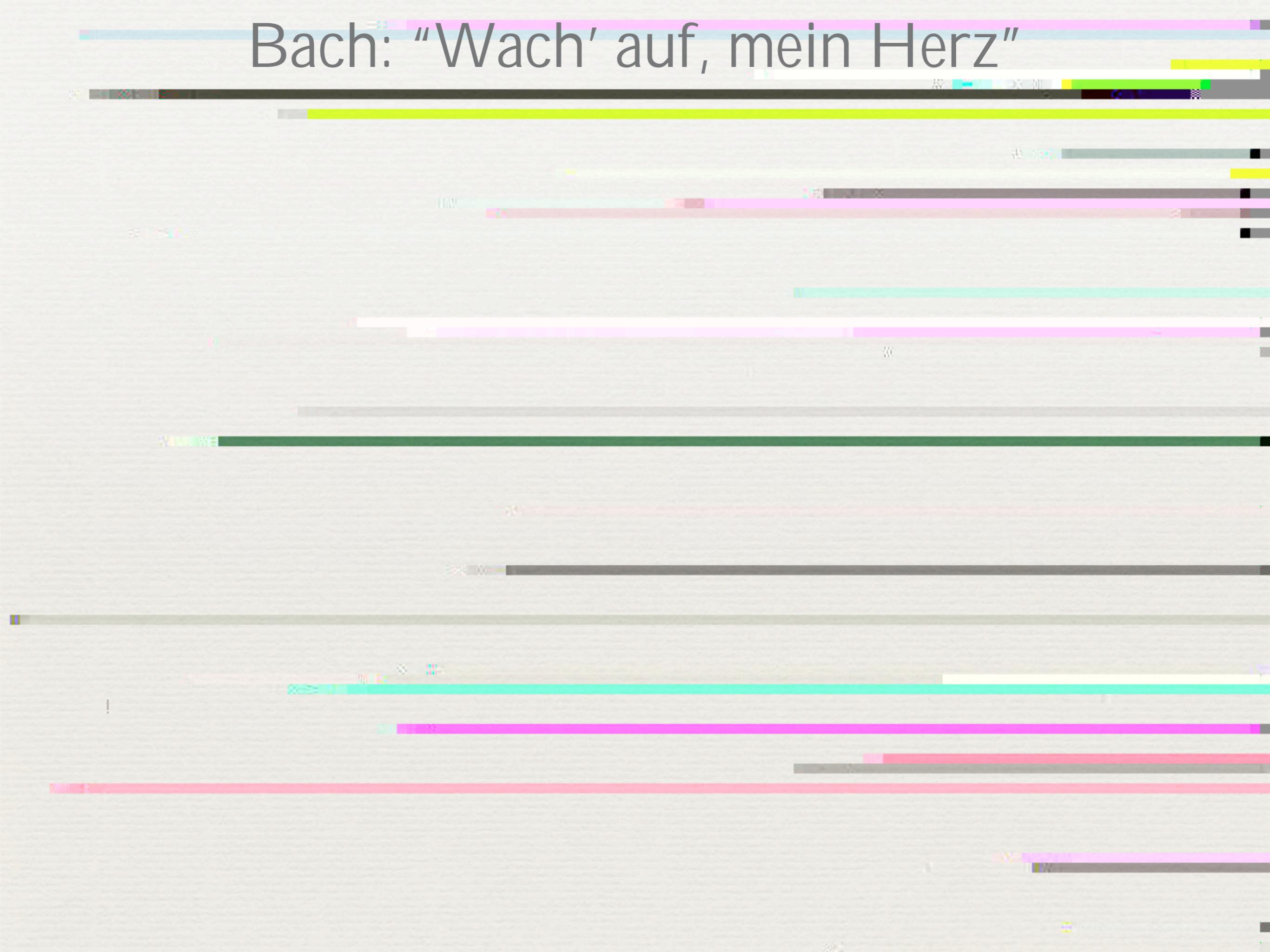
Therefore, the intermediate chord is found on the downbeat of bar 3

Bach: "Wach' auf, mein Herz"



- ! Therefore, the intermediate chord is found on the downbeat of bar 3
- ! It leads to a prolonged dominant on beat 2

Bach: "Wach' auf, mein Herz"

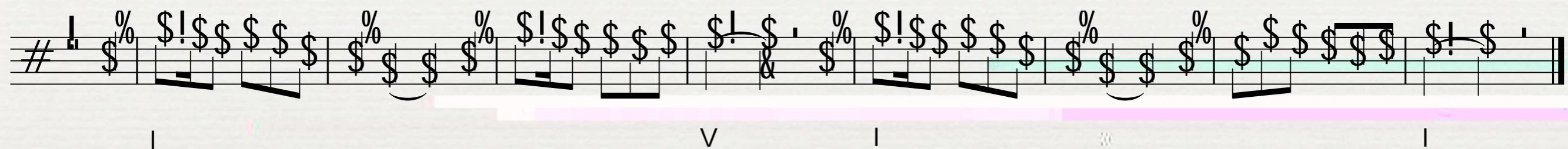


Bach: "Wach' auf, mein Herz"

A musical score for Bach's "Wach' auf, mein Herz". The score consists of two staves. The top staff begins with a treble clef, a key signature of one sharp (F#), and a common time (indicated by a 'C'). The first measure contains a single note followed by a fermata. The second measure starts with a common time signature (C) and a half note. The third measure begins with a common time signature (C) and a half note. The fourth measure begins with a common time signature (C) and a half note. The fifth measure begins with a common time signature (C) and a half note. The sixth measure begins with a common time signature (C) and a half note. The bottom staff begins with a bass clef, a key signature of one sharp (F#), and a common time (indicated by a 'C'). The first measure contains a single note followed by a fermata. The second measure starts with a common time signature (C) and a half note. The third measure begins with a common time signature (C) and a half note. The fourth measure begins with a common time signature (C) and a half note. The fifth measure begins with a common time signature (C) and a half note. The sixth measure begins with a common time signature (C) and a half note. Below the staves, the following bar numbers are labeled: I, vi, iii, IV, V $\frac{1}{2}$, 16.

Dominant Class

Dominant Class



- The half-cadence at the end of the antecedent requires a resolution

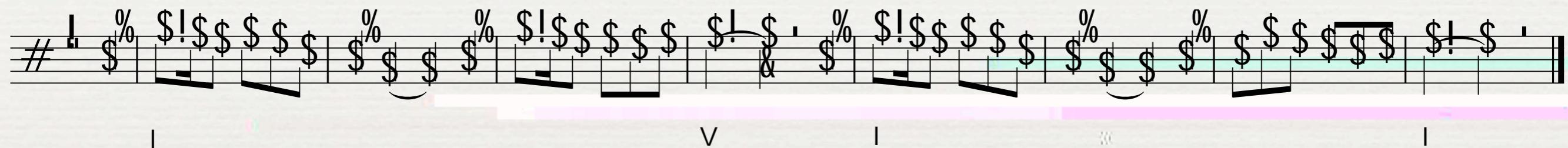
Dominant Class



- The half-cadence at the end of the antecedent requires a resolution
- However, the beginning of the consequent doesn't provide the resolution

Dominant Class

Dominant Class



- We tend to hear the end of the antecedent, and the beginning of the consequent, as an *interruption* before the dominant finally achieves full closure

Beethoven: Sonata Op. 13, II



Beethoven: Sonata Op. 13, II



! Different uses of dominant chords

Beethoven: Sonata Op. 13, II

A musical score for piano in 2/4 time, key signature of three flats. The score shows two measures of music. Measure 1 starts with a dotted half note followed by a quarter note. Measure 2 starts with a quarter note followed by a eighth note. Both measures have red boxes around them. The piano keys are shown in various colors (black, white, grey) corresponding to the notes played.

- ! Different uses of dominant chords
 - ! Dominants in bars 1 and 2 act as incomplete neighbors

Beethoven: Sonata Op. 13, II

2/4

- ! Different uses of dominant chords
 - ! Dominants in bars 1 and 2 act as incomplete neighbors
 - ! In bar 4, the V is in root position and articulates a half cadence

Beethoven: Sonata Op. 13, II

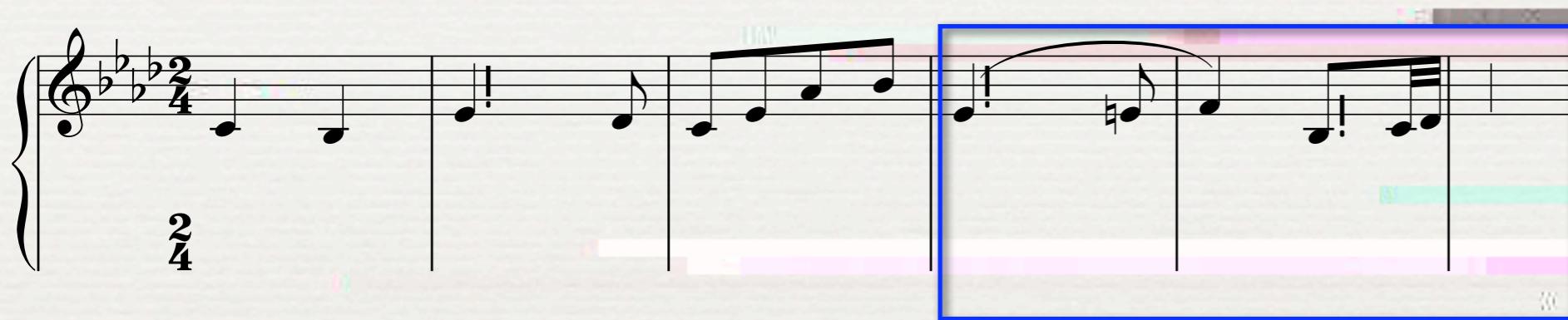


Beethoven: Sonata Op. 13, II



! Different uses of dominant chords

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- ! Different uses of dominant chords
 - ! The V in bar 4 resolves through V42 to I6—therefore the dominant persists through bar 5 as well

Beethoven: Sonata Op. 13, II

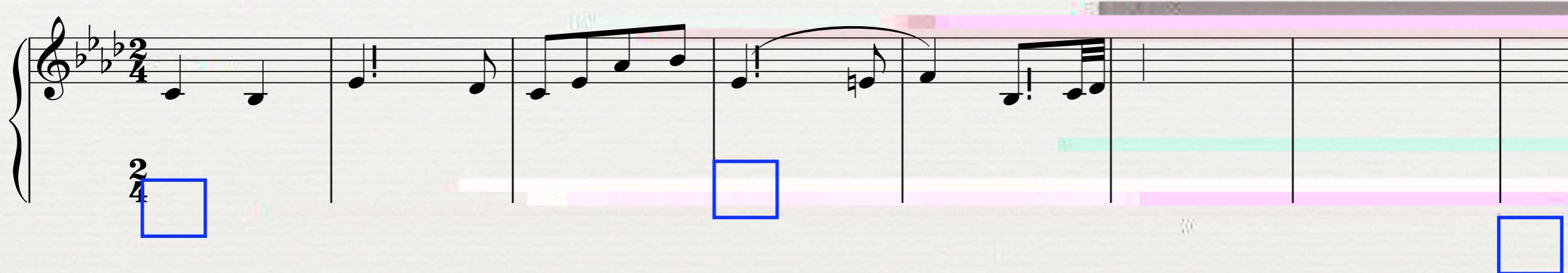


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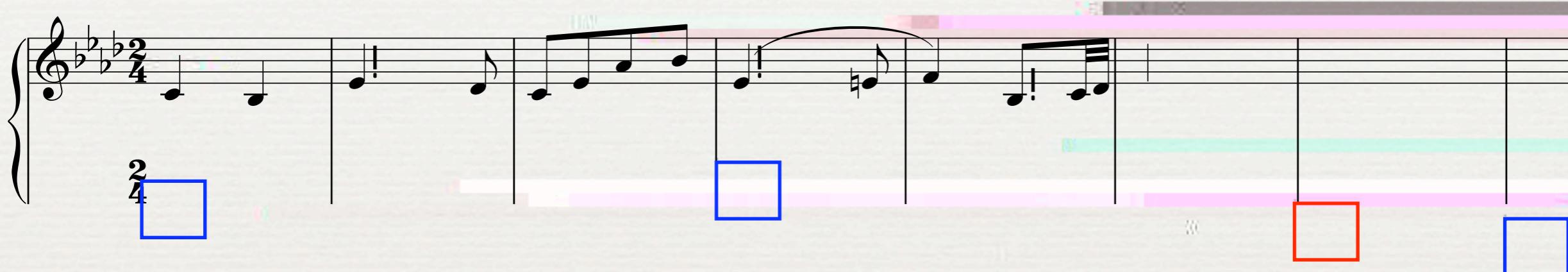
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Beethoven: Sonata Op. 13, II



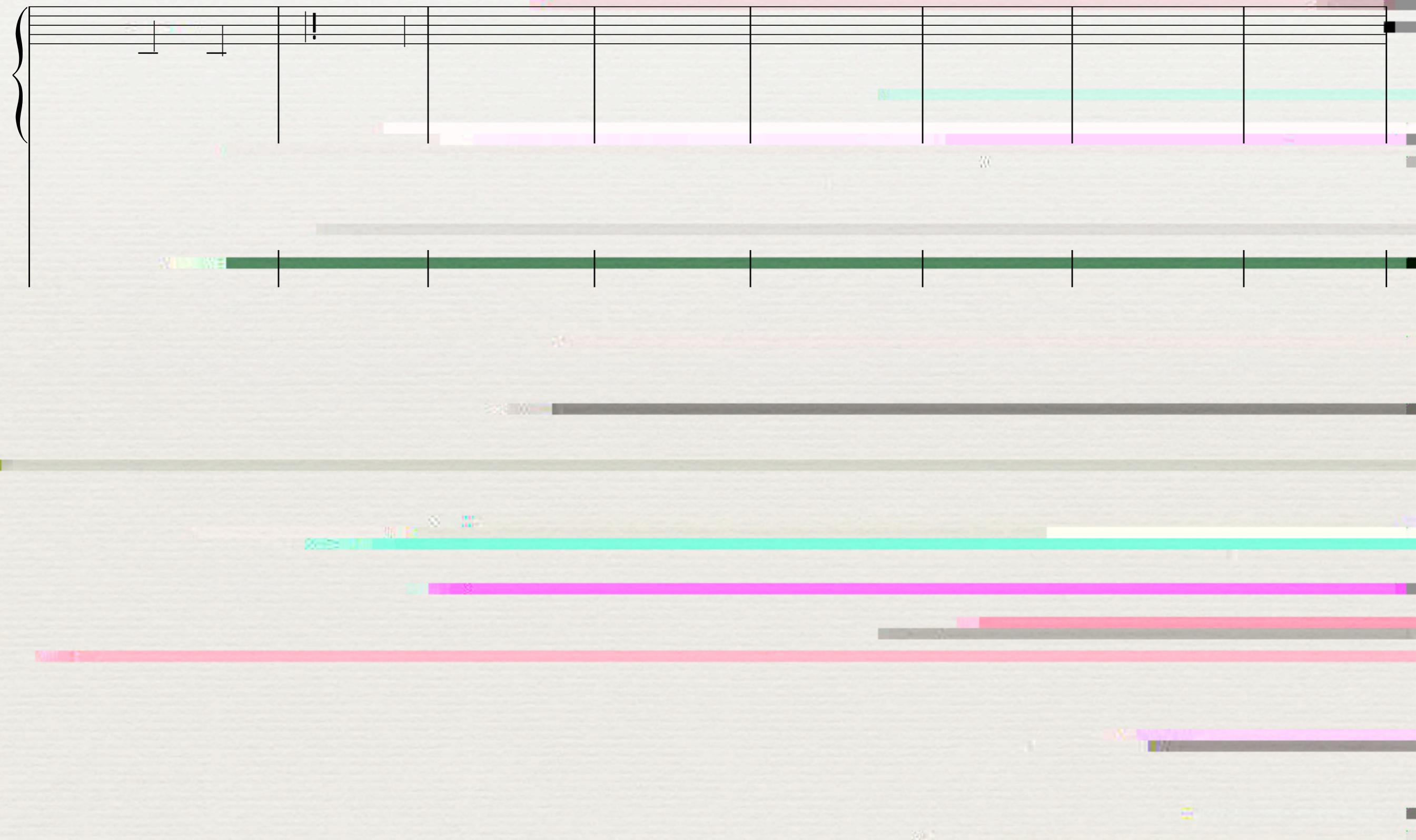
- ! Different uses of dominant chords
 - ! The V in bar 4 also acts so as to *divide* an overall bass motion from I to I

Beethoven: Sonata Op. 13, II



- ! Different uses of dominant chords
 - ! The V in bar 4 also acts so as to *divide* an overall bass motion from I to I
 - ! And also acts to prepare the long-term motion to the ii in bar 7

Beethoven: Sonata Op. 13, II



Beethoven: Sonata Op. 13, II



- A “dividing dominant” is indicated in the analysis with a bracketed [V]

Beethoven: Sonata Op. 13, II



- A “dividing dominant” is indicated in the analysis with a bracketed [V]
- Note important features:

Beethoven: Sonata Op. 13, II

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- ! Note important features:
 - ! The **dotted slur** (indicated a prolongation)

Beethoven: Sonata Op. 13, II

A musical score for Beethoven's Sonata Op. 13, II, shown on a piano keyboard. The score consists of two staves. The top staff shows a series of eighth-note chords. The bottom staff shows a bass line with stems pointing downwards. Two blue arrows point to specific notes on the bottom staff, and a red arrow points to a note on the top staff.

- ! A “dividing dominant” is indicated in the analysis with a bracketed [V]
- ! Note important features:
 - ! The **dotted slur** (indicated a prolongation)
 - ! **Stems** indicating the primary bass line notes

Beethoven: Sonata Op. 13, II

A musical score page showing a bass line. The bass line consists of a series of notes connected by a thick green horizontal line. Three specific features are highlighted with arrows: a red arrow points to a note with a flag (a small vertical stroke) above it; a blue arrow points to a note with a stem pointing upwards; another blue arrow points to a note with a stem pointing downwards. The background shows other musical staves and notes.

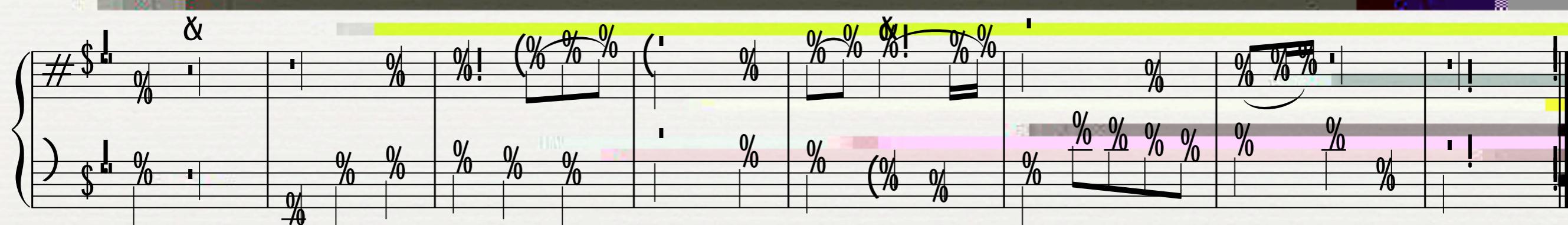
- ! A “dividing dominant” is indicated in the analysis with a bracketed [V]
- ! Note important features:
 - ! The **dotted slur** (indicated a prolongation)
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 - ! **Flags** indicating neighbor tones

Beethoven: Sonata Op. 13, II



- ! A “dividing dominant” is indicated in the analysis with a bracketed [V]
- ! Note important features:
 - ! The **dotted slur** (indicated a prolongation)
 - ! **Stems** indicating the primary bass line notes
 - ! **Flags** indicating neighbor tones
 - ! Large-scale tonic prolongation

Bach: Chorale "Ihr Gestirn, ihr hohen Lüfte"



Bach: Chorale “Ihr Gestirn, ihr hohen Lüfte”

The image shows two staves of musical notation. The top staff begins with a sharp sign and a dollar sign, followed by a series of percent signs and other symbols. The bottom staff begins with a dollar sign and a percent sign. A blue bracket highlights a section of the top staff. The number '9' is written above the staff.

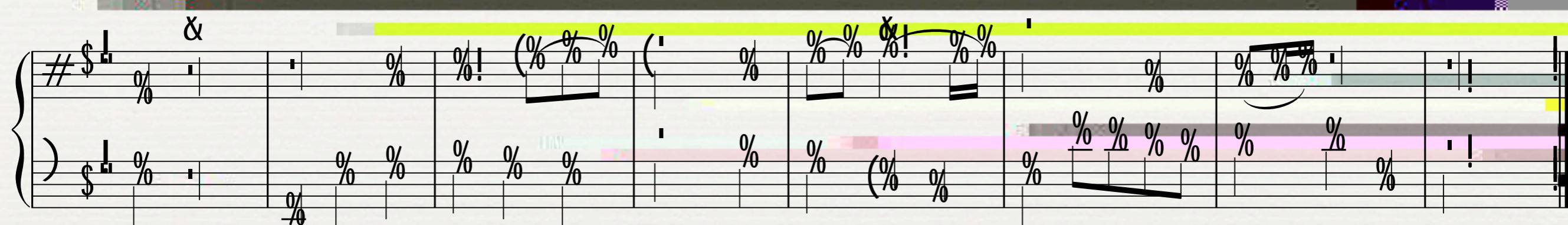
Two root-position tonic chords are connected by a dominant chord in root position—octave leap subdivided by a fifth

Bach: Chorale “Ihr Gestirn, ihr hohen Lüfte”

The image shows two staves of musical notation. The top staff is in G major (indicated by a sharp sign) and the bottom staff is in C major (indicated by a dollar sign). Both staves use common time. The notation consists of vertical stems with horizontal dashes indicating pitch. Various symbols are placed above the stems, including percent signs (%), ampersands (&), exclamation marks (!), parentheses (), and brackets []. A blue bracket groups the first four measures of the top staff. A green bracket groups the first four measures of the bottom staff. A pink bracket groups the last five measures of the bottom staff. A yellow bracket groups the last five measures of the top staff. The music concludes with a final cadence.

- Two root-position tonic chords are connected by a dominant chord in root position—octave leap subdivided by a fifth
- Soprano moves from $\hat{1}$ to $\hat{3}$; thus the tonic triad is fully outlined in both voices.

Bach: Chorale "Ihr Gestirn, ihr hohen Lüfte"



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The image shows two staves of musical notation. The top staff starts with a sharp sign and a dollar sign, followed by a series of percent signs and ampersands. The bottom staff starts with a dollar sign and a percent sign. A blue bracket highlights a section of the top staff. The number '9' is written above the top staff.

! Register transfer back to original octave; motion from I to I6 via a passing vii6.

Bach: Chorale "Ihr Gestirn, ihr hohen Lüfte"

The image shows two staves of musical notation. The top staff begins with a sharp sign and a dollar sign, followed by a series of percent signs and ampersands. The bottom staff begins with a dollar sign and a percent sign. Both staves feature vertical bar lines and horizontal beams connecting notes. A blue bracket highlights a specific section of the top staff, and a green bar highlights a section of the bottom staff.

- ! Register transfer back to original octave; motion from I to I₆ via a passing vii₆.
- ! Return to root-position tonic by means of a V43.

Bach: Chorale "Ihr Gestirn, ihr hohen Lüfte"

The image shows two staves of musical notation. The top staff starts with a sharp sign and a dollar sign, followed by a series of percent signs and ampersands. The bottom staff starts with a dollar sign and a percent sign. Both staves have a series of vertical bars with markings like percent signs, ampersands, and parentheses. There are also some horizontal bars and a blue bracket under the first few notes of the top staff.

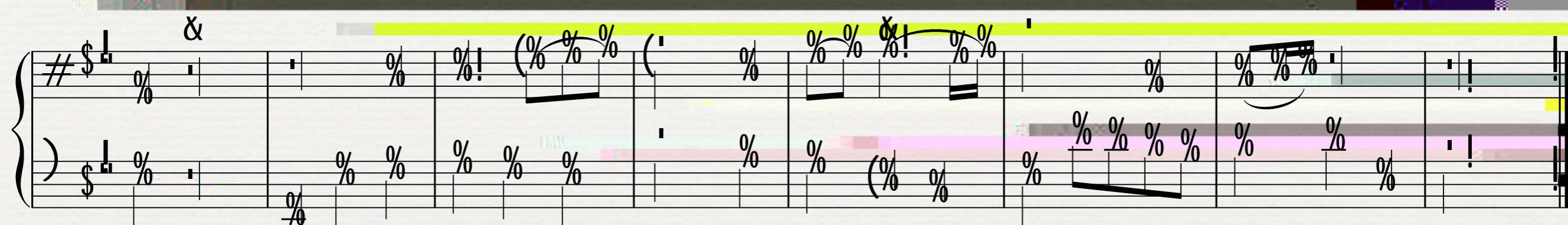
! Register transfer back to original octave; motion from I to I₆

via a passing vii₆.

! Return to root-position tonic by means of a V43.

! Motion from [^]3 to [^]6 of the tonic triad

Bach: Chorale "Ihr Gestirn, ihr hohen Lüfte"



Bach: Chorale "Ihr Gestirn, ihr hohen Lüfte"

The image shows two staves of musical notation. The top staff starts with a sharp sign, followed by a dollar sign, a percent sign, and an ampersand (&). The bottom staff starts with a parenthesis (and a dollar sign. Both staves have several percent signs scattered across them. A blue rectangular box highlights a specific note in the middle of the top staff. The number '9' is written above the first measure of the bottom staff.

Arrival at a dominant chord at bar 4, however the chord is not entirely stable

Bach: Chorale "Ihr Gestirn, ihr hohen Lüfte"

The musical score consists of two staves. The top staff begins with a sharp sign and a dollar sign, followed by a series of notes with percentage signs and exclamation marks. A blue box highlights the fourth note, which is a soprano note. The bottom staff begins with a sharp sign and a dollar sign, followed by a series of notes with percentage signs and exclamation marks.

- ! Arrival at a dominant chord at bar 4, however the chord is not entirely stable
 - ! The soprano note is the leading tone

Bach: Chorale "Ihr Gestirn, ihr hohen Lüfte"

The musical score consists of two staves. The top staff begins with a sharp sign and a dollar sign, followed by a series of notes with percentage signs and exclamation marks. A blue box highlights a section of four notes. The bottom staff begins with a sharp sign and a dollar sign, followed by a series of notes with percentage signs and exclamation marks.

- ! Arrival at a dominant chord at bar 4, however the chord is not entirely stable
 - ! The soprano note is the leading tone
 - ! Bass moves back through V42 to I63

Bach: Chorale “Ihr Gestirn, ihr hohen Lüfte”

The musical score consists of two staves. The top staff begins with a sharp sign and a dollar sign, followed by a series of notes with percentage signs and exclamation marks. The bottom staff begins with a dollar sign. A blue box highlights a section of four measures in the top staff, starting with a bass note and ending with a soprano note. The measure after the boxed section (bar 4) features a dominant chord with a leading tone. The bass line moves from V42 back to I63. The score continues with more measures, including a soprano note at the end of bar 9.

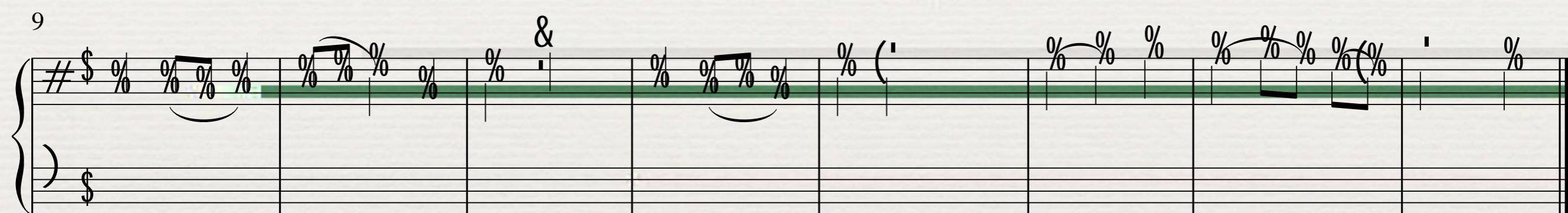
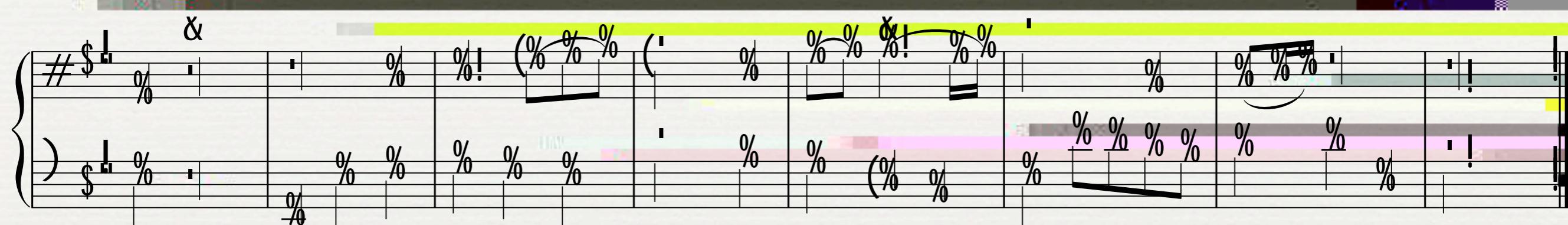
- Arrival at a dominant chord at bar 4, however the chord is not entirely stable

- The soprano note is the leading tone

- Bass moves back through V42 to I63

- Thus this is a “dividing” dominant

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The image shows two staves of musical notation. The top staff begins with a sharp sign, followed by a dollar sign, a percent sign, and an ampersand (&). The bottom staff begins with a parenthesis (, followed by a dollar sign, a percent sign, and a percent sign (%). Both staves have several percent signs and ampersands distributed throughout the measures. A blue rectangular box highlights a specific group of notes in the upper staff, which consists of a series of eighth notes. Below this, in measure 9, a green bar highlights a similar group of notes in the lower staff, also consisting of eighth notes.

! Return to I; notice the combination of stepwise motion and leaps in the bass.

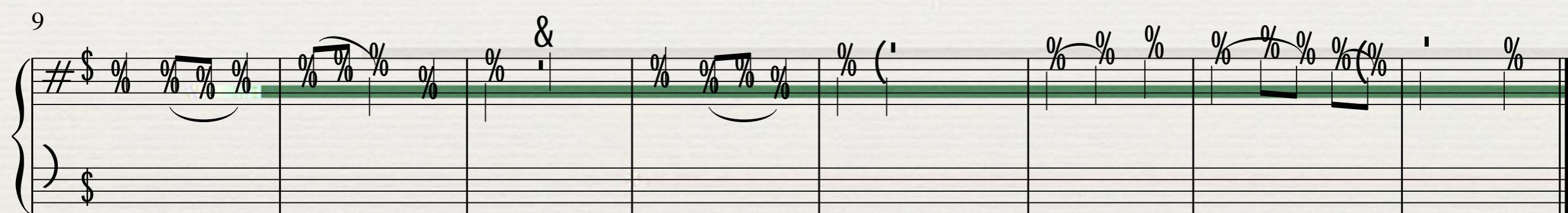
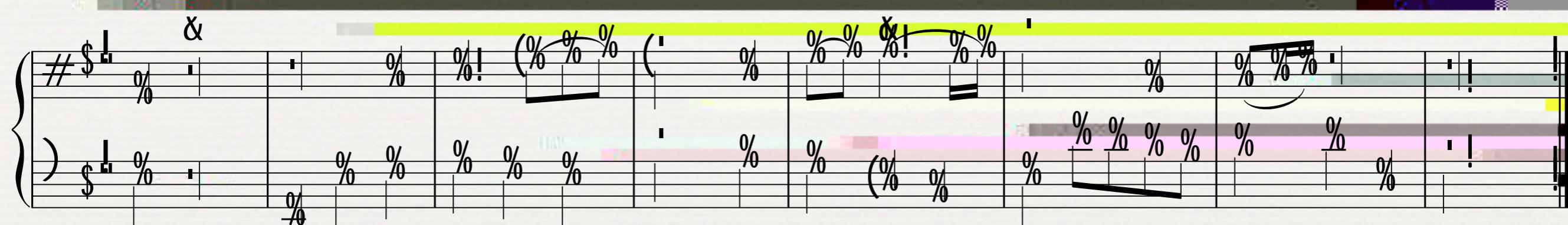
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! Return to I; notice the combination of stepwise motion and leaps in the bass.

! There is a *voice exchange* between the outer voices in this motion from I6 to I

Bach: Chorale "Ihr Gestirn, ihr hohen Lüfte"



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The image shows two staves of musical notation. The top staff begins with a sharp sign and a dollar sign, followed by a series of percent signs and ampersands. The bottom staff begins with a dollar sign. A blue box highlights a section of the top staff where there are four consecutive percent signs. A green box highlights a section of the bottom staff where there are four consecutive percent signs. The music consists of vertical stems with horizontal dashes, typical of early printed music notation.

Modulation to III.

Bach: Chorale "Ihr Gestirn, ihr hohen Lüfte"

The image shows two staves of musical notation. The top staff begins with a sharp sign and a dollar sign, followed by a series of percent signs and other markings. The bottom staff begins with a dollar sign. A blue box highlights a section of the top staff, and a green box highlights a section of the bottom staff. Measure numbers 8 and 9 are visible above the staves.

! Modulation to III.

! F is established as a key area in its own right



Modulation

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- Therefore, the new key is both a new tonic, and still retains whatever secondary quality in the old key (i.e., if you modulate to V in a major key, the V is a new key, but still acts like the dominant in the original key.)
- Because of that, Schenker referred to modulation as motion to an “illusory key.”

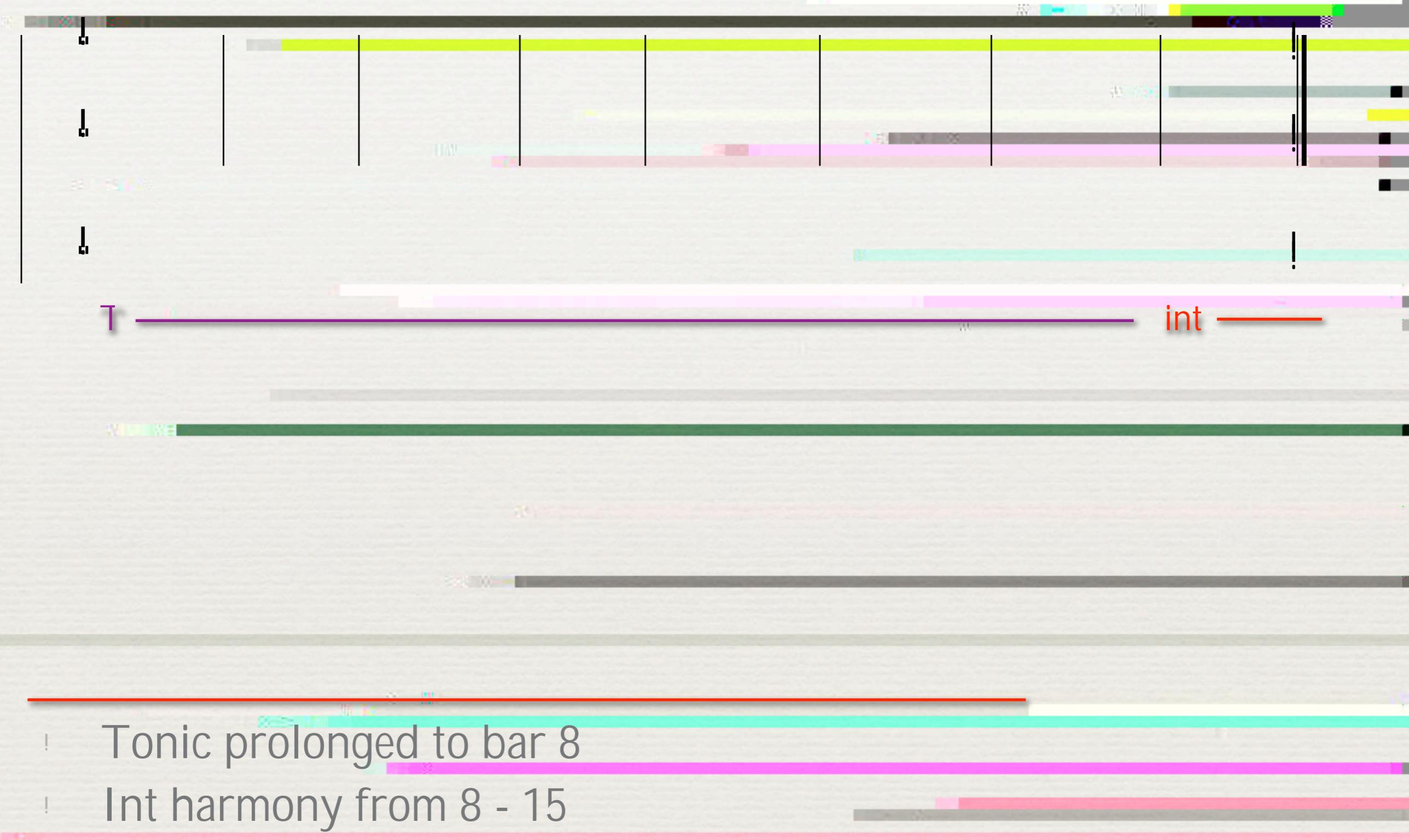
Bach: Chorale "Ihr Gestirn, ihr hohen L.6n L:



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! Tonic prolonged to bar 8

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- ! Tonic prolonged to bar 8
- ! Int harmony from 8 - 15
- ! D harmony at 15
- ! Final T harmony at 16

Imaginary Continuo

Imaginary Continuo

- An *imaginary continuo* creates a harmonic representation of a composition, removing melodic and harmonic embellishment

Imaginary Continuo

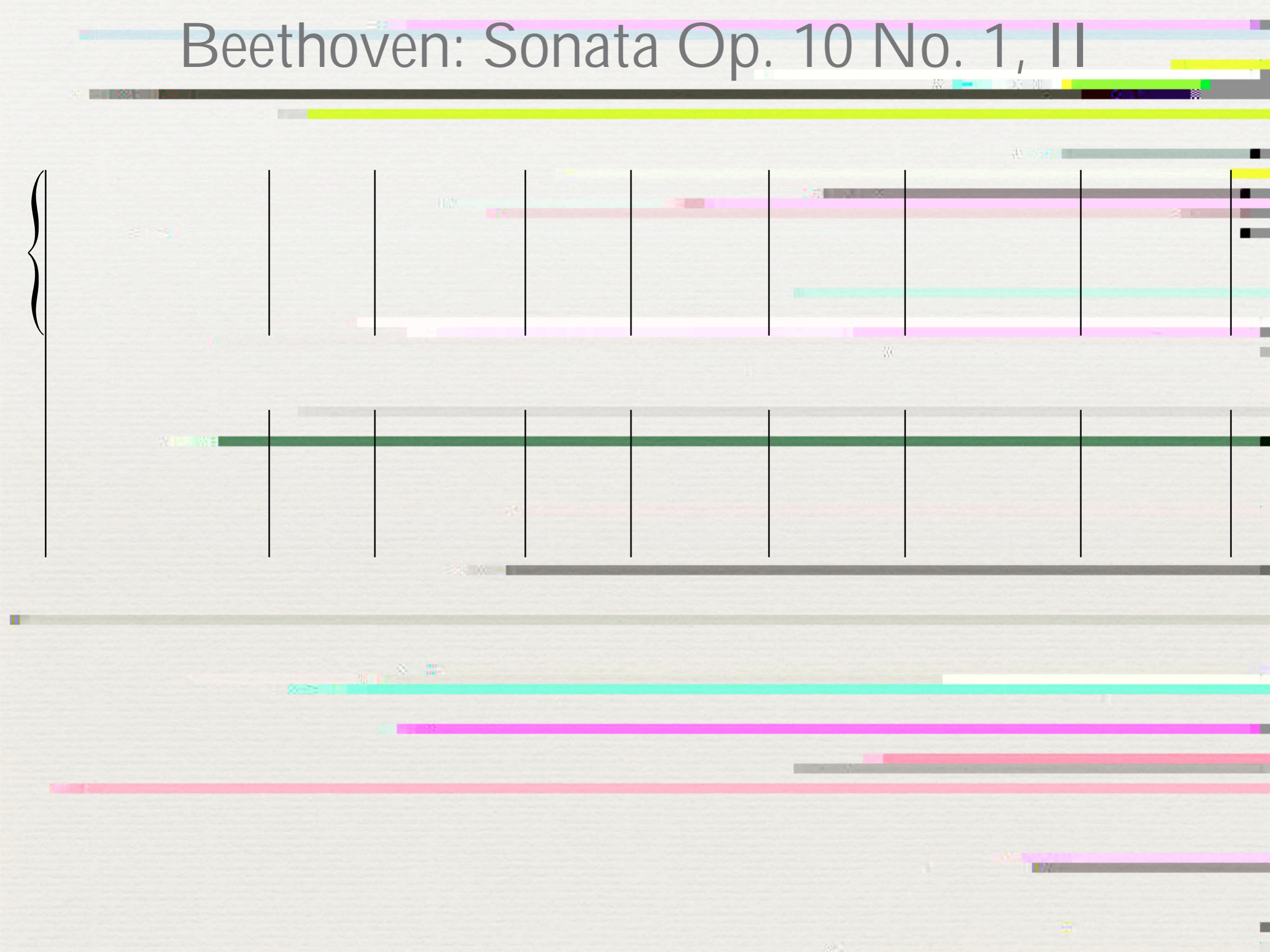
Imaginary Continuo

- ! An *imaginary continuo* creates a harmonic representation of a composition, removing melodic and harmonic embellishment
- ! Feel free to move between three and six voices
- ! Try to stay with relatively “pure” voice leading, unless to do so means to seriously misrepresent the composition

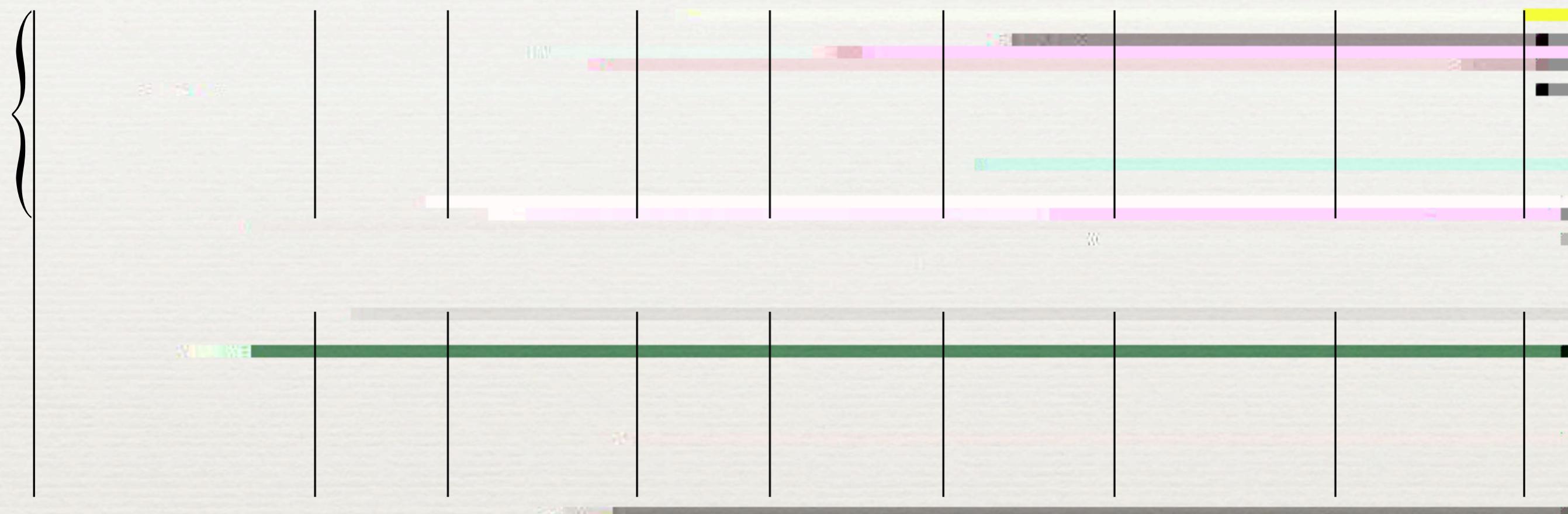
Imaginary Continuo

- ! An *imaginary continuo* creates a harmonic representation of a composition, removing melodic and harmonic embellishment
- ! Feel free to move between three and six voices
- ! Try to stay with relatively “pure” voice leading, unless to do so means to seriously misrepresent the composition
- ! Generally think of piano style—the RH plays complete chords, while the LH plays single bass notes

Beethoven: Sonata Op. 10 No. 1, II

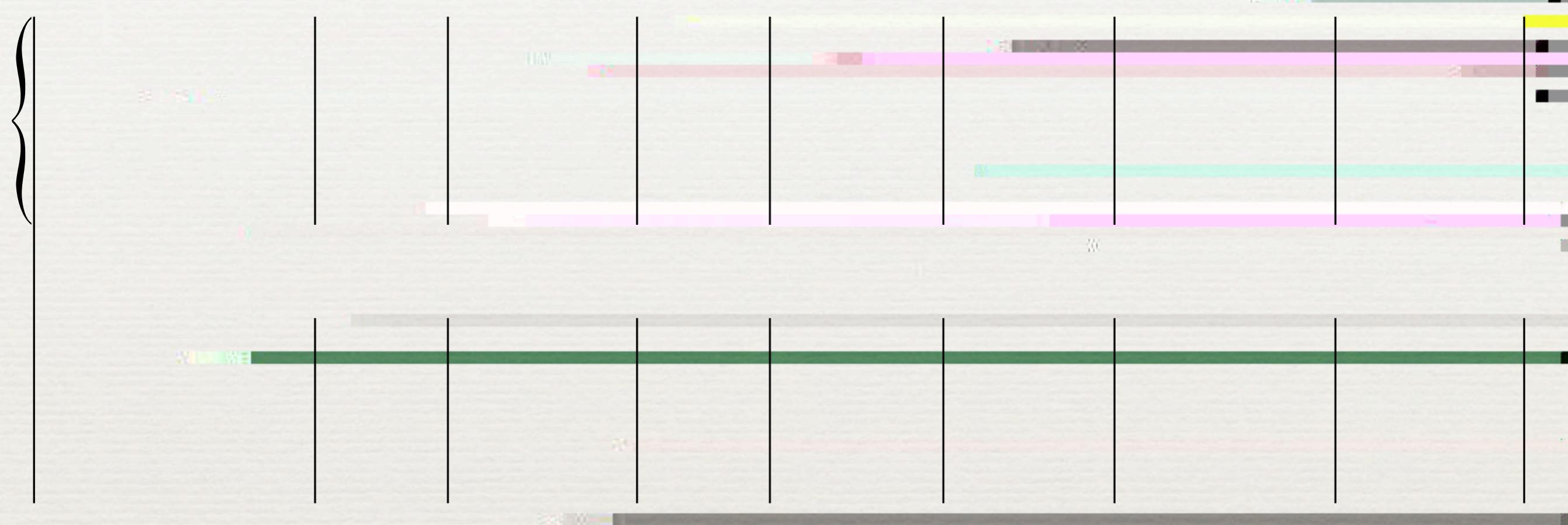


Beethoven: Sonata Op. 10 No. 1, II



The imaginary continuo follows the original pretty closely.

Beethoven: Sonata Op. 10 No. 1, II



- The imaginary continuo follows the original pretty closely.
- Note: my version is a bit different from the text; I think their version in bars 6 & 7 was a bit too “convenient” and slightly misrepresented the music.