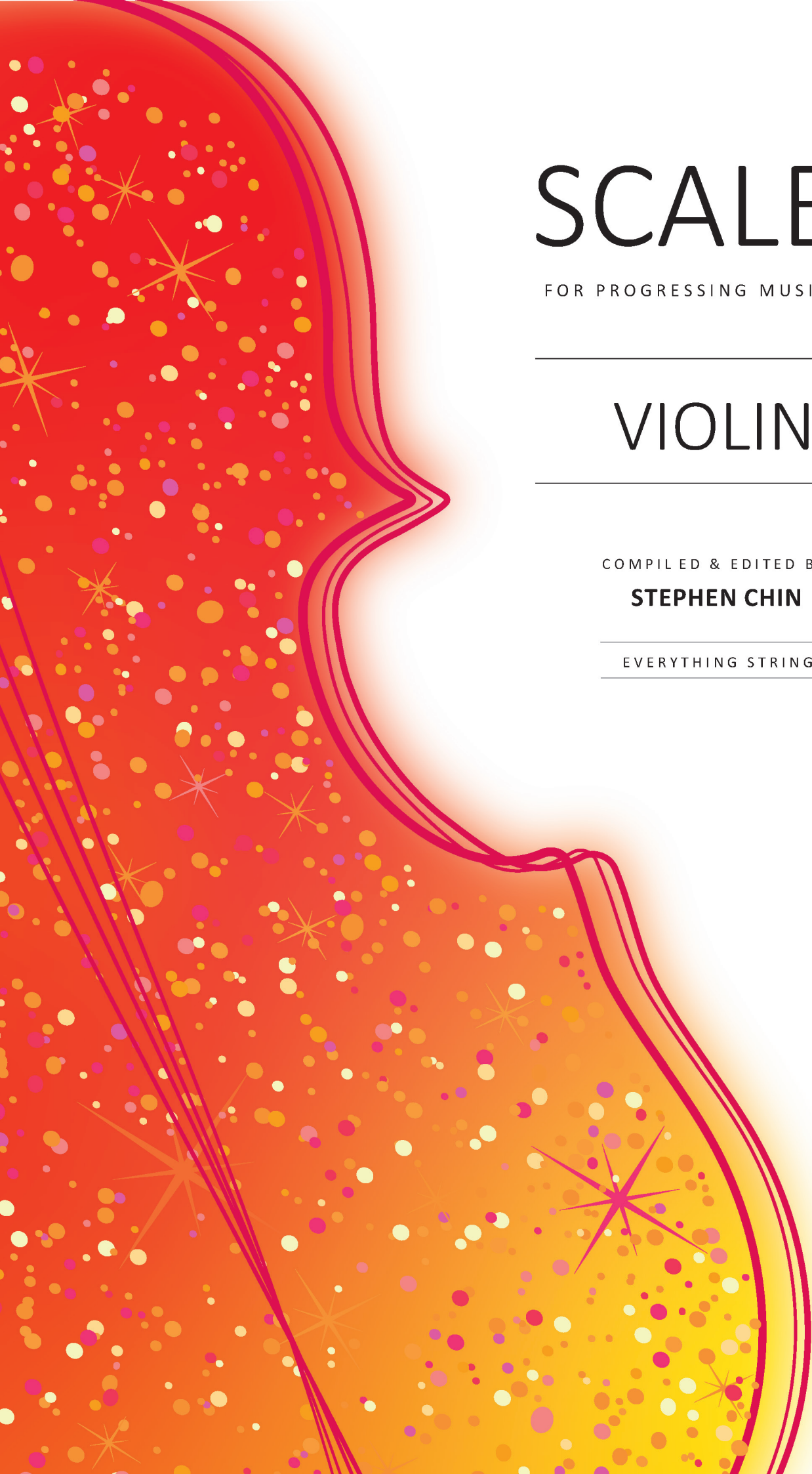


A stylized graphic of a violin body, rendered in a gradient of red and orange. The interior of the violin is filled with a dense pattern of small, colorful dots (yellow, orange, pink, purple) and larger, multi-pointed starburst shapes in yellow and pink. The violin's outline is defined by several concentric, slightly irregular lines in a dark red or magenta color.

SCALES

FOR PROGRESSING MUSICIANS

VIOLIN

COMPILED & EDITED BY

STEPHEN CHIN

EVERYTHING STRING

SCALES

FOR PROGRESSING MUSICIANS

VIOLIN

COMPILED AND EDITED BY STEPHEN CHIN

I have always loved scales and enjoy looking for them in all kinds of music. As you play and refine them, scales can also allow you to concentrate on how various parts of your body work with your instrument. It is well known that scales form the foundation of most Western music and the patterns that emerge from the careful study of them are often helpful when understanding new studies or pieces. Using scales with a variety of bowing styles, rhythms, speeds and dynamics is also a great way to develop reliability and confidence with your instrument. Once this is attained, greater opportunities for expression and musical insight are possible. It is important to remember that whilst building your repertoire of scales, it is also good to focus on the ones that are evident in your current musical works. In addition to this, a solid grounding in music theory and music history is likely to make your journey in music even more engaging and enjoyable.

After the content pages, there are brief descriptions of some basic bowing styles, a number of rhythmic suggestions that players may find useful when learning new repertoire, and a brief overview of each scale genre presented in the book.

Stephen Chin

Brisbane, 2025

Stephen Chin

M Mus, B Mus, Dip Mus Comp



As a founding member of the Sydney Youth Orchestra, Stephen's interest and enthusiasm for music led him to undertake formal training at Sydney University in both violin and composition with John Harding and Peter Sculthorpe respectively. Stephen also attained a Master of Music from Queensland Conservatorium of Music Griffith University, under the tutelage of Michele Walsh, specialising in violin performance and pedagogy.

Stephen has been invited to perform with such groups as The ABC Sinfonia, The Badinerie Players, The Queensland Philharmonic Orchestra, The Queensland Symphony Orchestra, The Queensland Pops Orchestra and a number of professional chamber ensembles. He is also an examiner for the Australian Music Examination Board (AMEB).

Under the banner of Everything String, Stephen publishes a number of string compositions and arrangements which have been used as test pieces for a number of competitions throughout Australia. Notably, in both 2015 and 2016, Stephen was commissioned by the NSW Arts Education Unit to write works for several Sydney Opera House performances involving eight thousand primary age musicians throughout NSW. Additionally, as a gesture of good will and to promote strong international relations, Everything String has also donated music to a number of international organisations such as Serendip (Sri Lanka), the Ghana String Project and the Yew Chung International School (Hong Kong).

Stephen's compositions and arrangements are also presented as examination pieces in the in the AMEB books for violin, viola, cello and double bass. He has been invited many times to adjudicate various eisteddfods and competitions throughout Australia. Stephen is also in demand as a string and orchestral clinician, regularly conducting a number of workshops and festivals both nationally and internationally.

From 2013 – 2015, Stephen lectured in String Pedagogy and Practicum at the Queensland Conservatorium of Music, Griffith University and was the conductor of the BEL faculty Chamber Orchestra 2008 – 2013 at the University of Queensland. He has also written articles for journals such as The Strad and Stringendo.

Stephen was the Queensland State President of The Australian Strings Association (AUSTA) 2011 – 13 and National President for AUSTA 2014 – 2016. As a Past National President of AUSTA, Stephen continues to be involved in the Consultation Committee and is the International Tour Organiser.

In 2022, Stephen was awarded the National Award by the Australian Strings Association (AUSTA) in recognition for an outstanding contribution to the string community throughout Australia. This award is given only once every three years.

Presently, he is Principal String Teacher and Director of Orchestras at Brisbane Grammar School.

Table of Contents

BASIC BOWING STYLES	6	TWO OCTAVE SCALE SYSTEMS (continued)	
SOME USEFUL RHYTHMIC GROUPS	8	Eb	63
BRIEF OVERVIEWS OF EACH SCALE GENRE	10	E	64
		F	65
TUNING USING PERFECT INTERVALS		F#	66
POSITIONS 1 - 4	12		
POSITIONS 5 - 8	13	ONE POSITION SCALES	
FIRST POSITION SCALES		C MAJOR	68
C MAJOR	16	A MINOR	69
A MINOR	18	G MAJOR	70
G MAJOR	20	E MINOR	71
E MINOR	22	D MAJOR	72
D MAJOR	24	B MINOR	73
B MINOR	26	A MAJOR	74
A MAJOR	28	F# MINOR	75
F# MINOR	30	E MAJOR	76
E MAJOR	32	C# MINOR	77
C# MINOR	34	B MAJOR	78
F MAJOR	36	G# MINOR	79
D MINOR	38	F# MAJOR	80
Bb MAJOR	40	D# MINOR	81
G MINOR	42	C# MAJOR	82
Eb MAJOR	44	A# MINOR	83
C MINOR	46	F MAJOR	84
Ab MAJOR	48	D MINOR	85
F MINOR	50	Bb MAJOR	86
		G MINOR	87
TWO OCTAVE SCALE SYSTEMS		Eb MAJOR	88
TWO OCTAVE SCALE MAPS	54	C MINOR	89
G	55	Ab MAJOR	90
Ab	56	F MINOR	91
A	57	Db MAJOR	92
Bb	58	Bb MINOR	93
B	59	Gb MAJOR	94
C	60	Eb MINOR	95
Db / C#	61	Cb MAJOR	96
D	62	Ab MINOR	97

ONE OCTAVE ONE STRING SCALE SYSTEMS

G	100
Ab	102
A	104
Bb	106
B	108
C	110
C#	112
D	114
Eb	116
E	118
F	120
F#	122

THREE OCTAVE SCALE SYSTEMS

G	126
Ab	128
A	130
Bb	132
B	134
C	136
Db / C#	138
D	140
Eb	142
E	144
F	146
F#	148

DOUBLE STOPPED SCALES

G MAJOR	152
G MINOR	153
Ab MAJOR	154
Ab MINOR	155
A MAJOR	156
A MINOR	157
Bb MAJOR	158
Bb MINOR	159
B MAJOR	160
B MINOR	161

DOUBLE STOPPED SCALES (continued)

C MAJOR	162
C MINOR	163
Db MAJOR	164
C# MINOR	165
D MAJOR	166
D MINOR	167
Eb MAJOR	168
Eb MINOR	169
E MAJOR	170
E MINOR	171
F MAJOR	172
F MINOR	173
F# MAJOR	174
F# MINOR	175

SELECTED SCALES IN HARMONICS

G MAJOR & G MINOR	178
Ab MAJOR & Ab MINOR	178
A MAJOR & A MINOR	179
Bb MAJOR & Bb MINOR	179
B MAJOR & B MINOR	180
C MAJOR & C MINOR	180

LEFT HAND PIZZICATO SCALES & ARPEGGIOS

G MAJOR & G MINOR	182
Ab MAJOR & Ab MINOR	182
A MAJOR & A MINOR	183
Bb MAJOR & Bb MINOR	183
B MAJOR & B MINOR	184
C MAJOR & C MINOR	184
Db MAJOR & C# MINOR	185
D MAJOR & D MINOR	185
Eb MAJOR & Eb MINOR	186
E MAJOR & E MINOR	186
F MAJOR & F MINOR	187
F# MAJOR & F# MINOR	187

BASIC BOWING STYLES

It is a good idea to learn and refine each bowing style on open strings before applying them to scales and arpeggios. Importantly, aim to keep your body and in particular your neck, shoulders, wrists, hand and fingers, relaxed and flexible at all times. The brief descriptions are only suggestions, and your teacher may be able to provide further instructions for each bowing style. Setting up the bow hold by balancing the bow between thumb and little finger then adding the other fingers may also help.

Smooth bows at the frog - ① Raise hand and bend fingers just before down-bow ② Drop hand and slightly straighten fingers just before upbow.

Detaché - practise smooth separate strokes at all areas of the bow. Use slow bows initially then faster strokes.

Son filé - means "spun tone". Practise using very long bows with a variety of dynamics.

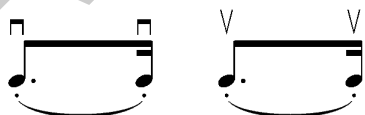
Legato - practise any number of notes slurred in one stroke.

Collé - is the basis of a number of other strokes. To establish good contact between the bow hair and string, slightly wriggling the string with the bow beforehand, using the thumb, fingers and hand, is recommended. These simple steps may help: *contact* → *tiny bow (fingers & thumb move very quickly making a "clicking" sound)* → *lift*.

Martelé - related to collé with the bow staying on the string. Remember to wriggle the string slightly beforehand using the thumb, fingers, and hand to set up good contact with the string. These simple steps may help: *contact* → *fast bow* → *rest bow lightly on string, allowing the note to ring*.

Hook stroke - related to martelé. Remember to wriggle the string slightly beforehand using the thumb, fingers, and hand to set up good contact with the string. Typical bowings are given below.

1 hook stroke - linked



2 hook stroke - unlinked



Spiccato – contact style; related to collé. It is bouncing yet more incisive. Practise both duplets and triplets at the balance point of the bow and a little further up the bow for faster speeds.

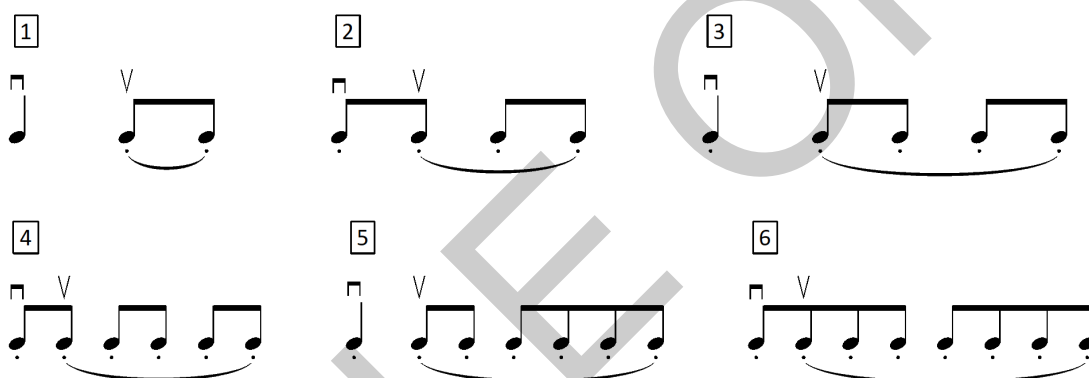
Spiccato – brush style; related to detaché - bouncing yet more broad (horizontal). Practise both duplets and triplets at the balance point of the bow and a little further up the bow for faster speeds.

Firm Staccato - related to martelé. Wriggle the string slightly beforehand using thumb, fingers and hand to set up good contact with the string. Typical bowings are given below. Practise slowly at first near the balance point then higher up the bow as speed increases. The bow stays on the string for each note. Arm may need to stiffen slightly as the speed increases.

Flying Staccato – related to contact style spiccato. Wriggle the string slightly beforehand using thumb, fingers and hand to set up good contact with the string. Typical bowings are given below. Practise slowly at first near the balance point then higher up the bow as speed increases. The bow leaves the string slightly for each note.

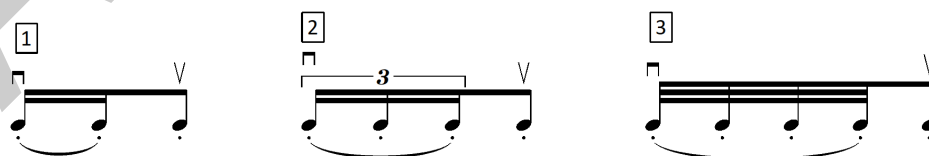
Flying Spiccato – related to détaché. Typical bowings are given below. Practise slowly at first near the balance point then higher up the bow as speed increases. The bow leaves the string slightly for each note.

Use for firm staccato, flying staccato & flying spiccato.



Sautillé - wriggle the string slightly beforehand using thumb, fingers and hand to set up good contact with the string. Use a tapping action with the right hand, keeping the bow hair quite flat on the string. Initially, practise semiquavers at 126 - 132 BPM with multiple strokes on open strings. After this play 4, 3, then 2 strokes per note. Single strokes for each note will require more precise coordination between the hands.

Ricochet – practise using a flatter bow hair in the upper two thirds of the bow. Faster speeds will be further up the bow. Typical bowings are given below.



String crossings – practise over 2, 3, then 4 strings with separate or slurred bowings. Initially, use open strings then double stops and chords as required.

Springing arpeggios - practise over 3 or 4 strings using a flatter bow hair. Applying alternating legato bowing with springing arpeggios for better control may be helpful.

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35 36 37 38

5/8

39 40 41 42

3/4

43 44 45 46

3/4

47 48 49 50

3/4

51 52 53 54

3/4

55 56 57 58

6/8

59 60 61 62

6/8

63 64 65 66

6/8

67 68 69 70

6/8

BRIEF OVERVIEWS OF EACH SCALE GENRE

TUNING USING PERFECT INTERVALS

Perfect intervals are the only intervals that are common to Pythagorean and Just tuning systems. These have been devised to provide the player with reference points in a variety of positions. They should be practised daily even by advanced players.

FIRST POSITION SCALES

These scales are essential learning for the beginner violinist. A scale map shows precisely where the fingers need to go for each key. The light grey dots indicate the optional use of the 4th finger. In addition to the one octave scales, the other notes on the other strings are introduced. Both major and minor keys up to four sharps and four flats have been presented.

TWO OCTAVE SCALE SYSTEMS

These scales are useful in gaining greater awareness of notes across the strings. Maps of each scale type are given. Only Ab harmonic and melodic minor scales need to be slightly adapted. It is suggested that these scales be learned extensively before studying the three octave systems.

ONE POSITION SCALES

These are excellent in developing a strong sense of tonality throughout a variety of positions. The repeated note at the top of each position helps to remember the fingering when descending.

ONE OCTAVE ONE STRING SCALE SYSTEMS

These are great for acquiring a good sense of geography up and down each string. They are also useful in acquiring smooth shifts and fostering the correct elevation of the instrument.

THREE OCTAVE SCALE SYSTEMS

These scales are important in developing greater facility in all regions of the instrument. The 48-note system for the scales lends itself to groupings of 2, 3, 4, 6, 8, 12, 16, and 24 notes.

DOUBLE STOPPED SCALES

Practise slurring from the bottom note to the top note as shown below. Slurring from the top note for fingered octaves and tenths may be a little easier on your hand. Once this step is secure, try playing them as written.

Use for fingered octaves and tenths.



SELECTED TWO OCTAVE SCALES IN HARMONICS

The left-hand finger pressure needs to be very light. Bow nearer the bridge for clarity.

LEFT HAND PIZZICATO SCALES AND ARPEGGIOS

Try to get a little of the skin from the plucking fingertip slightly under the string. These scales and arpeggios are great for developing stronger fingers and a clearer tone for descending passages.

Tuning Using Perfect Intervals

- Aim to listen for difference tones for 4ths and 5ths.
- Repeat each section between the double barlines as you feel you need to.
- Timing may be free initially.

1st position

2nd position

3rd position

4th position

5th position

Two staves of musical notation for 5th position tuning exercises. The first staff shows six pairs of notes (octaves) with fingerings 2/0, 2/0, 2/0, 3/0, 3/0, and 3/0. The second staff shows nine pairs of notes with fingerings: 2/0, 1/2, 2/0, 1/2, 3 (on A)/0, 2/3, 3 (on D)/0, 2/3, 3 (on G)/0, and 2/3.

6th position

Two staves of musical notation for 6th position tuning exercises. The first staff shows six pairs of notes with fingerings 1/0, 1/0, 1/0, 2/0, 2/0, and 2/0. The second staff shows ten pairs of notes with fingerings: 1/0, 4/1, 1/0, 4/1, 3 (on A)/0, 2/3, 3 (on D)/0, 2/3, 3 (on G)/0, and 2/3.

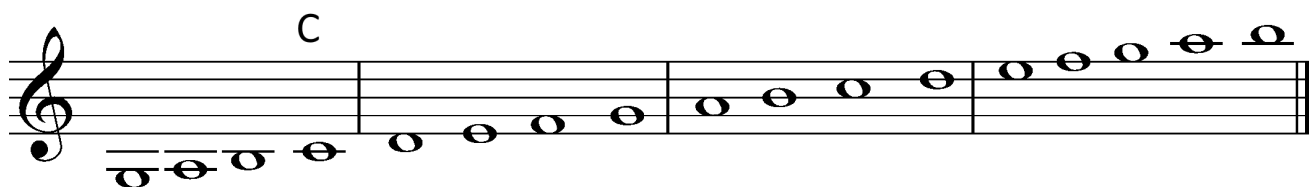
7th position

Two staves of musical notation for 7th position tuning exercises. The first staff shows seven pairs of notes with fingerings: 1/0, 1/0, 1/0, 4/0, 4/0, 4/0, and 1 (on G)/0. The second staff shows nine pairs of notes with fingerings: 1 (on D)/0, 4/1, 1 (on A)/0, 4/1, 2 (on A)/0, 1/2, 2 (on D)/0, 1/2, and 2 (on G)/0.

8th position

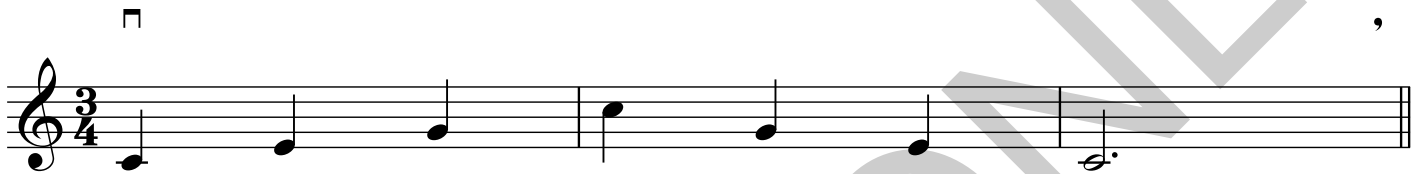
Two staves of musical notation for 8th position tuning exercises. The first staff shows five pairs of notes with fingerings: 1 (on A)/0, 4/1, 1 (on D)/0, 4/1, and 1 (on G)/0. The second staff shows five pairs of notes with fingerings: 3/0, 3/4 (on G), 3/0, 3/4 (on D), and 3/4 (on A).

No flats, no sharps

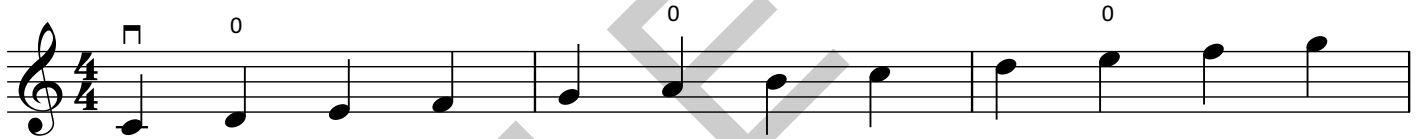


C major

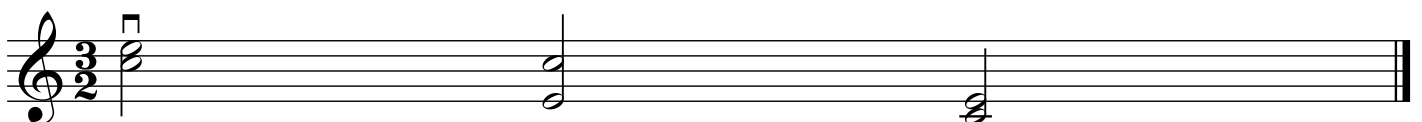
major scale with arpeggio



all major scale notes in first position

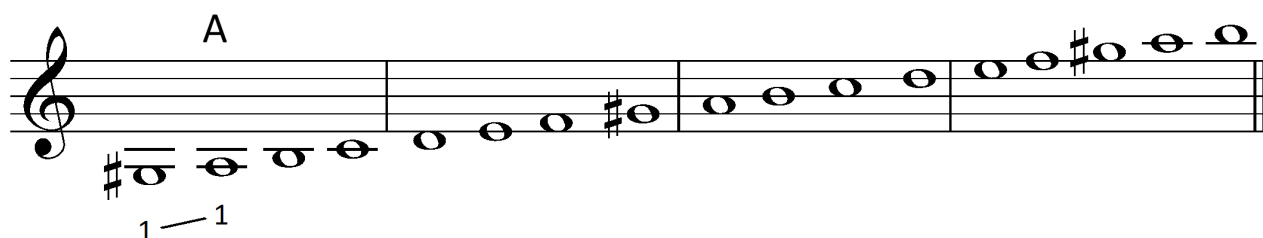
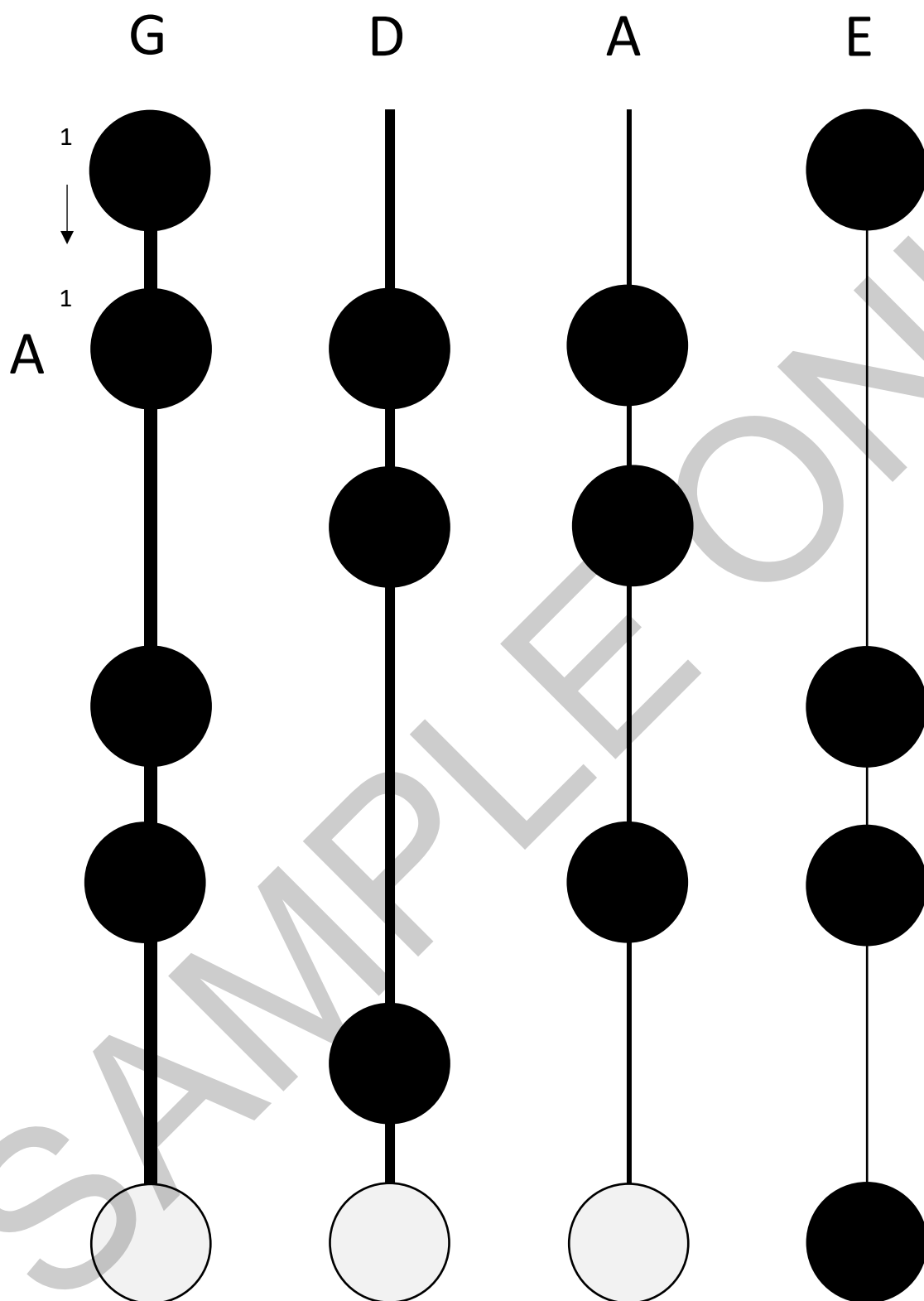


some double stops



A harmonic minor

No flats, no sharps; leading note G#



A harmonic minor

harmonic minor scale with arpeggio (lower octave)

Two staves of music in treble clef. The first staff is in 4/4 time and shows the harmonic minor scale with arpeggio in the lower octave, starting on C4. The second staff is in 3/4 time and shows the same scale with arpeggio, starting on C4. Both staves include fingerings (0, 4, 4) and a repeat sign at the end.

harmonic minor scale with arpeggio (upper octave)

Two staves of music in treble clef. The first staff is in 4/4 time and shows the harmonic minor scale with arpeggio in the upper octave, starting on C5. The second staff is in 3/4 time and shows the same scale with arpeggio, starting on C5. Both staves include fingerings (0, 0, 4, 0) and a repeat sign at the end.

all harmonic minor scale notes in first position

Three staves of music in treble clef. The first staff is in 4/4 time and shows the harmonic minor scale notes in first position, starting on C4. The second staff is in 4/4 time and shows the harmonic minor scale notes in first position, starting on C5. The third staff is in 3/4 time and shows the harmonic minor scale notes in first position, starting on C4. All staves include fingerings (0, 4, 1, 1) and a repeat sign at the end.

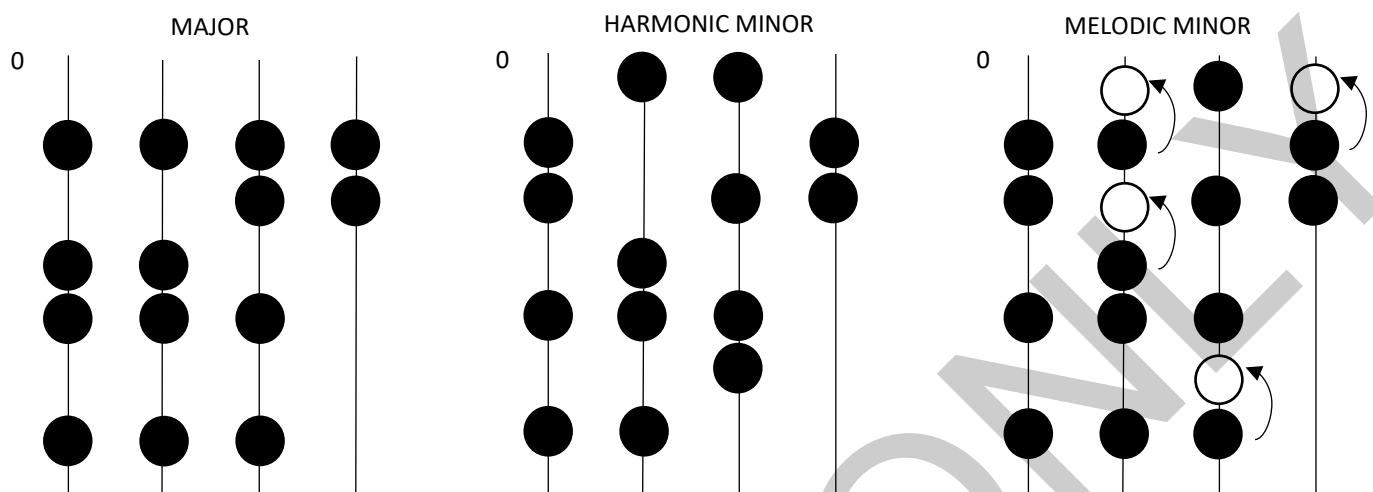
some double stops

A single staff of music in treble clef, 3/4 time, showing three double stops: C4 and E4, C5 and E5, and C6 and E6.

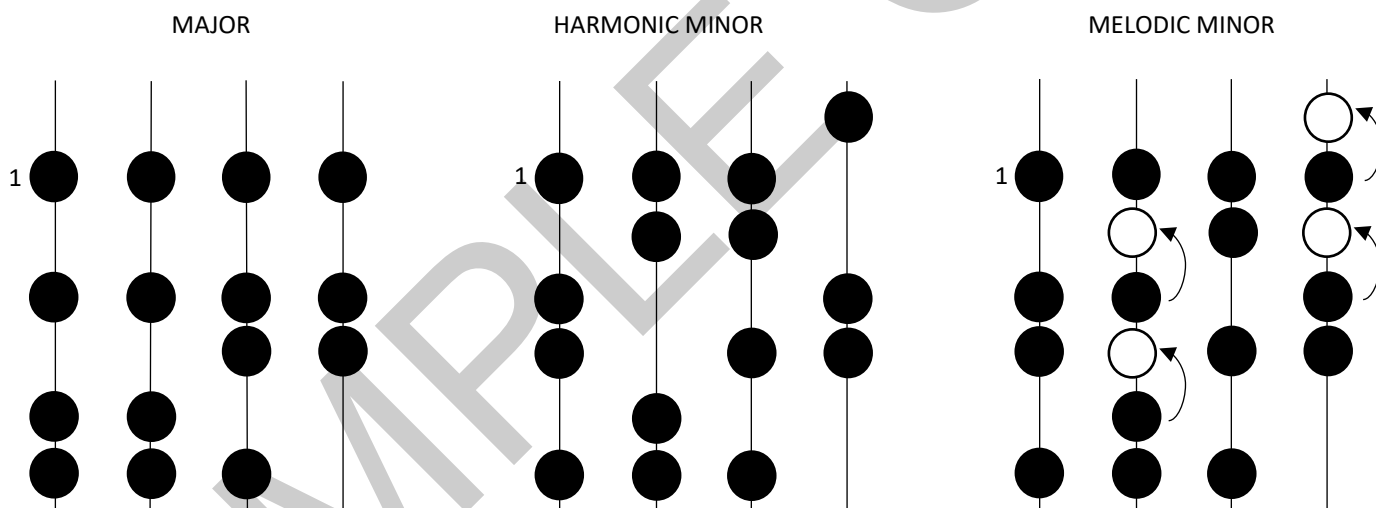
TWO OCTAVE SCALE MAPS

For melodic minor scales, use the black dots only ascending. When descending, the finger is placed where the white dot is shown.

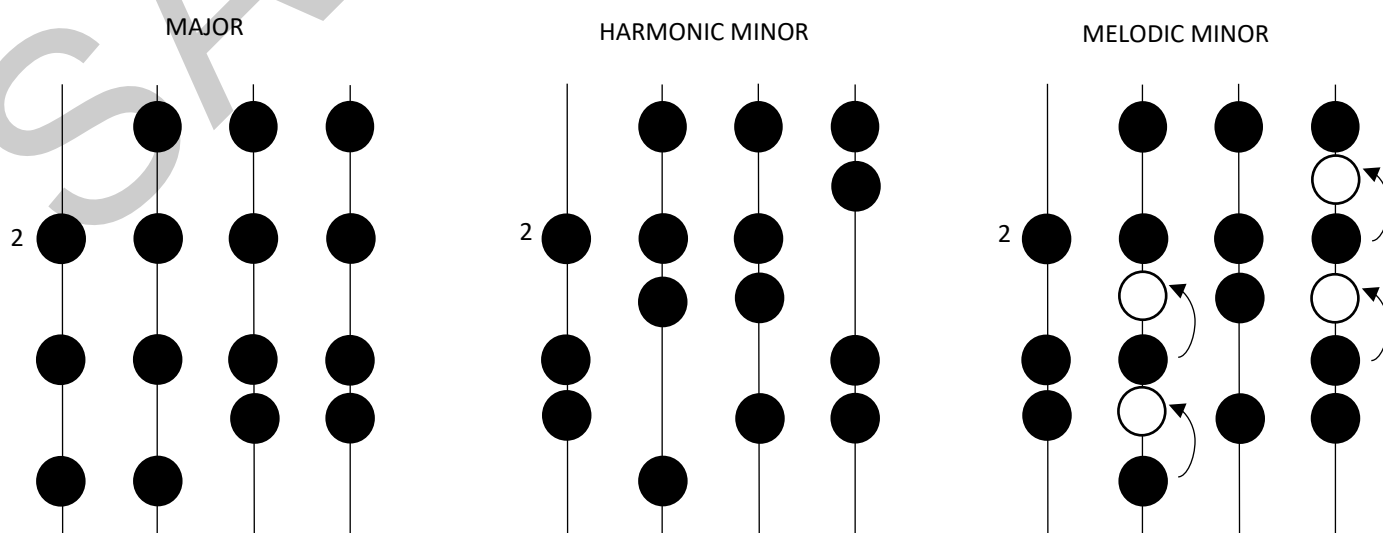
OPEN STRING START



1st FINGER START



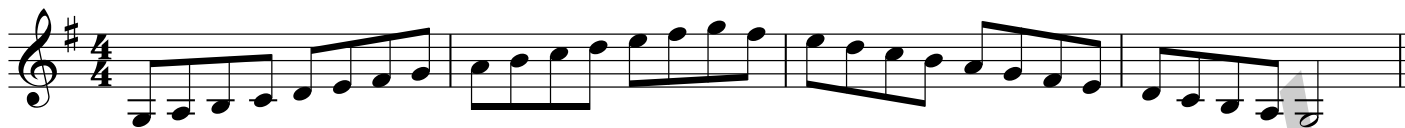
2nd FINGER START



G

SCALES

major



harmonic minor



melodic minor



ARPEGGIOS

minor

major



submediant (minor)

subdominant (major)

subdominant (minor)

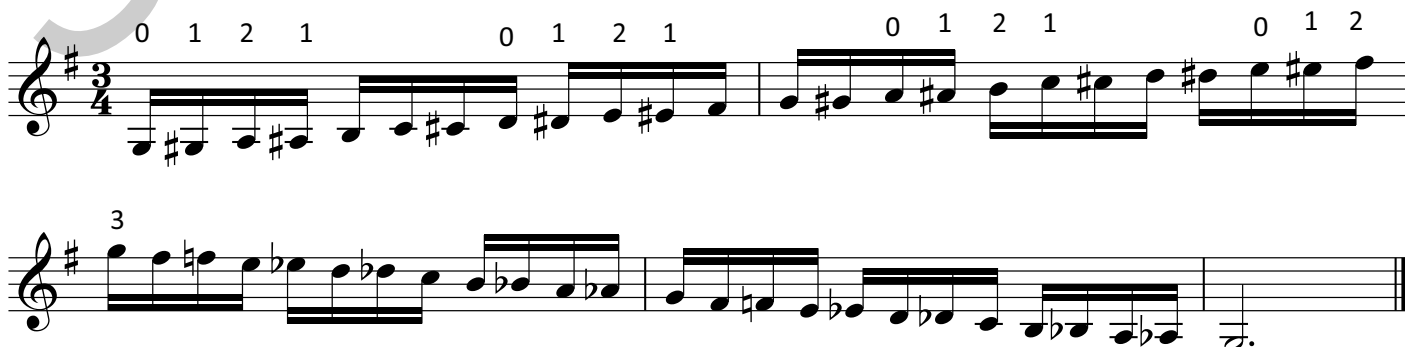


diminished 7th

dominant 7th



CHROMATIC SCALE



A

SCALES

major



harmonic minor



melodic minor



ARPEGGIOS

minor



major



submediant (minor)



subdominant (major)



subdominant (minor)



diminished 7th



dominant 7th



CHROMATIC SCALE



SCALES

dominant 7th

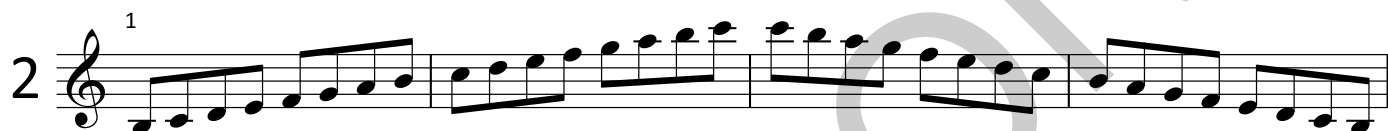
2 4 1 3 1 3 0 2 4

2 0

(4)

C major

POSITION



POSITION

A harmonic minor

The image displays seven staves of musical notation for the A harmonic minor scale in first position. Each staff is numbered 1 through 7, corresponding to the first seven positions of the scale. The notation includes fingerings (1, 4, 0) and accidentals (sharps and naturals) to indicate the correct pitch and fingering for each note. The scale is written in treble clef with a key signature of one sharp (F#). The first staff shows the scale starting on A4, with fingerings 1 1 0 0 0 1 1. The second staff shows the scale starting on B4, with fingerings 1 4 4 4. The third staff shows the scale starting on C5, with fingering 1. The fourth staff shows the scale starting on D5, with fingering 1. The fifth staff shows the scale starting on E5, with fingering 1. The sixth staff shows the scale starting on F#5, with fingering 1. The seventh staff shows the scale starting on G5, with fingering 1. The notation includes sharps for F# and C# in the ascending and descending scales, and naturals for F and C in the descending scales. The scale is written in 4/4 time.

G

IV

major

0 1 3 0 1 3

harmonic minor

0 1 3 0 1 3

melodic minor

0 1 3 0 1 2 1 2

tonic minor

0 1 2 3

tonic major

1 2 1 2

submediant (minor)

2 3

subdominant (major)

2 3

subdominant (minor)

2 3

diminished seventh

1 3 x4 2

dominant seventh

1 2

broken thirds (major)

2 2 3 x4 2 2

broken thirds (minor)

2 2 3 x4 2 2

chromatic

0 1 1 1 3 3 3

III

1 1 1 4 4 3 1 1 1 4 4 3

1 1 1 4 3 2 1 1 3 1 3 2 3

2 4 2 4 1 3 x4 3 1 3 3

2 2 2 2 2 2 2 2 2 2

2 2 2 2 2 2 2 2 2 2

1 1 1 1 3 3 3

G

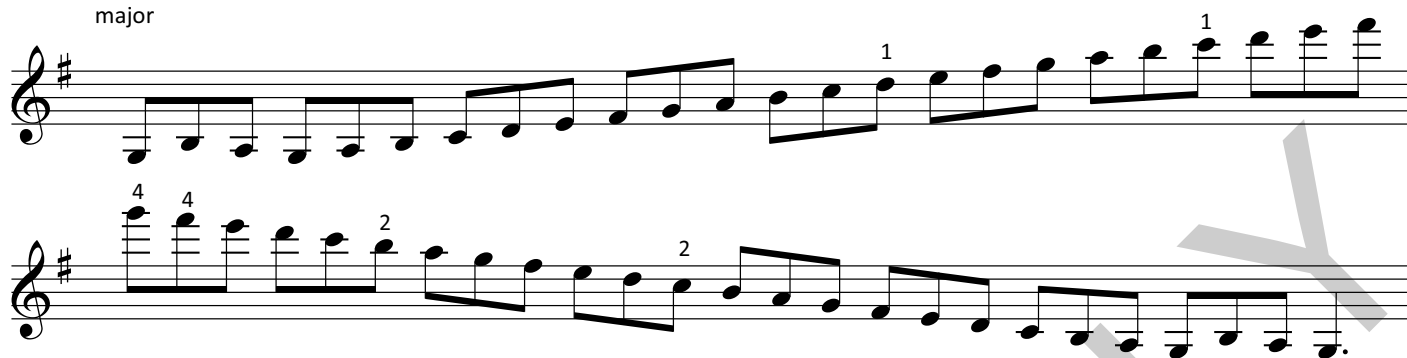
The image displays two identical musical systems for the G major scale, each consisting of six staves. The first system begins with a double bar line and a repeat sign. The second system begins with a first ending bracket. The notation is as follows:

- Staff 1:** Treble clef, key signature of one sharp (F#). Notes: G4 (1), A4 (1), B4 (1), C5 (4), D5 (4), E5 (3), F#5 (1), G5 (1), A5 (b), B5 (1), C#6 (b), D6 (4), E6 (4), F#6 (3), G6 (3).
- Staff 2:** Treble clef, key signature of one sharp. Notes: G5 (1), A5 (b), B5 (1), C#6 (b), D6 (4), E6 (4), F#6 (3), G6 (2), A6 (1), B6 (1), C#7 (3), D7 (b), E7 (1), F#7 (3), G7 (2), A7 (2).
- Staff 3:** Treble clef, key signature of one sharp. Notes: G7 (2), A7 (2), B7 (4), C#8 (2), D8 (b), E8 (b), F#8 (4), G8 (b), A8 (b), B8 (1), C#9 (3), D9 (x4), E9 (3), F#9 (b), G9 (b), A9 (1), B9 (b), C#10 (3), D10 (4).
- Staff 4:** Treble clef, key signature of one sharp. Notes: G9 (2), A9 (2), B9 (2), C#10 (2), D10 (2), E10 (2), F#11 (2), G11 (2), A11 (2), B11 (2), C#12 (2), D12 (2), E12 (2), F#13 (2), G13 (2), A13 (2), B13 (2).
- Staff 5:** Treble clef, key signature of one sharp. Notes: G13 (2), A13 (2), B13 (2), C#14 (2), D14 (b), E14 (b), F#15 (2), G15 (b), A15 (b), B15 (2), C#16 (2), D16 (b), E16 (b), F#17 (2), G17 (2), A17 (2), B17 (2).
- Staff 6:** Treble clef, key signature of one sharp, 3/4 time signature. Notes: G17 (1), A17 (1), B17 (1), C#18 (1), D18 (1), E18 (1), F#19 (1), G19 (1), A19 (1), B19 (1), C#20 (1), D20 (1), E20 (1), F#21 (1), G21 (1), A21 (1), B21 (1).

G

SCALES

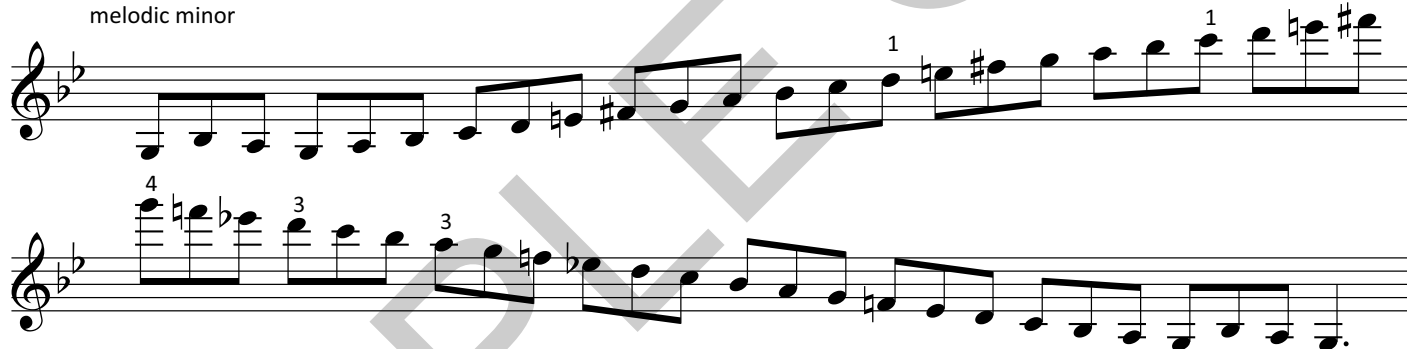
major



harmonic minor

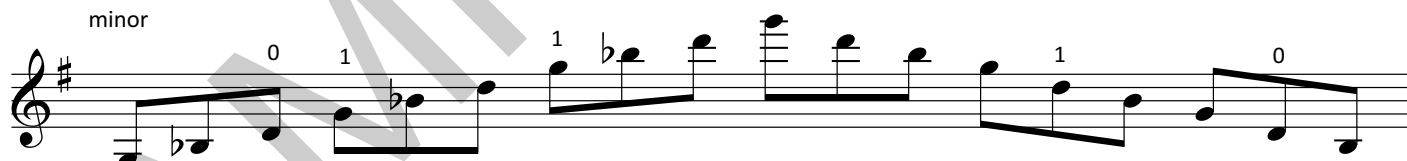


melodic minor

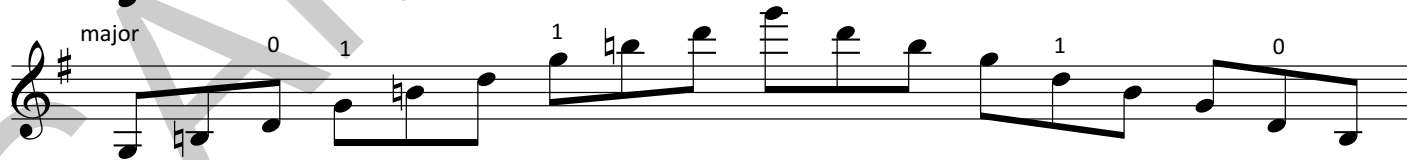


ARPEGGIOS

minor



major



submediant (minor)



subdominant (major)



subdominant (minor)



BROKEN THIRDS

dominant seventh

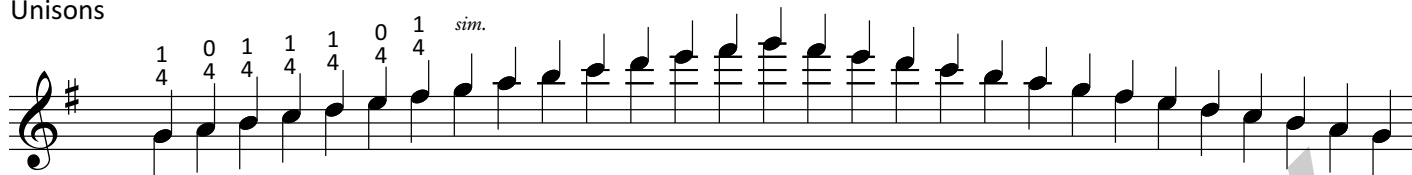
major

minor

CHROMATIC SCALE

G major

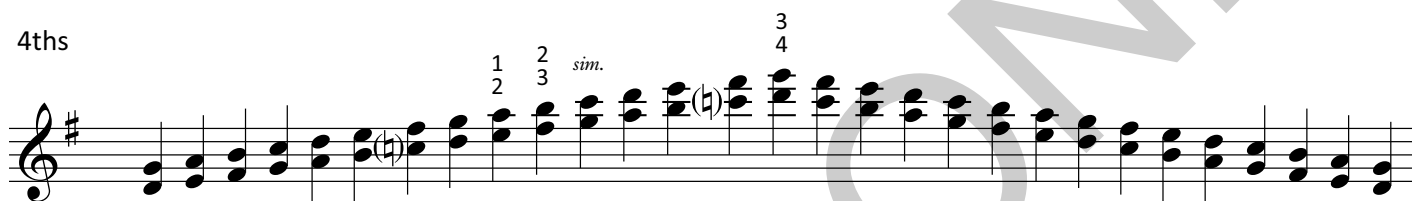
Unisons



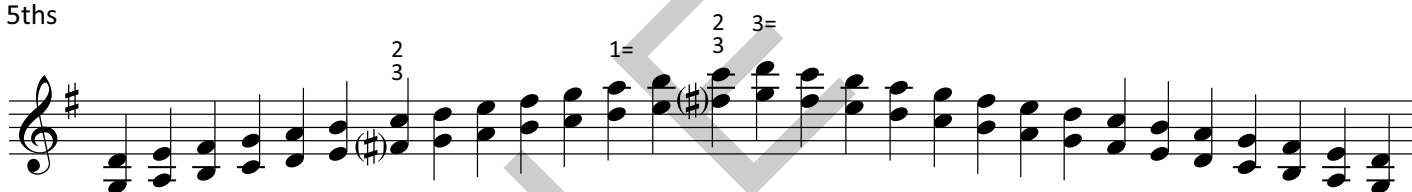
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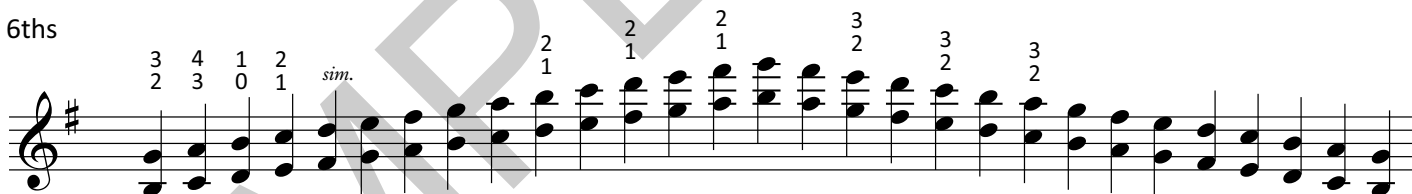
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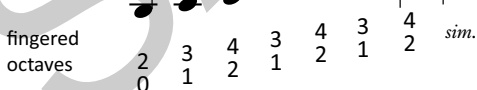
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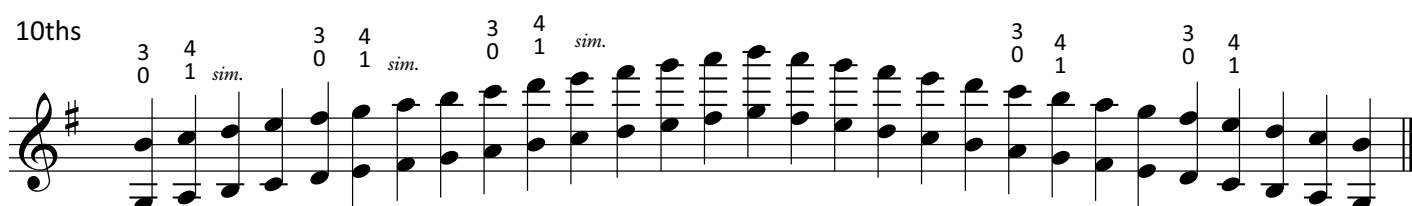
6ths



8ves

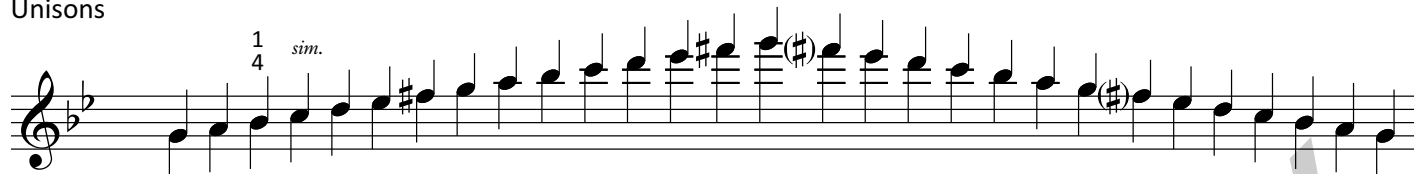
fingered
octaves

10ths

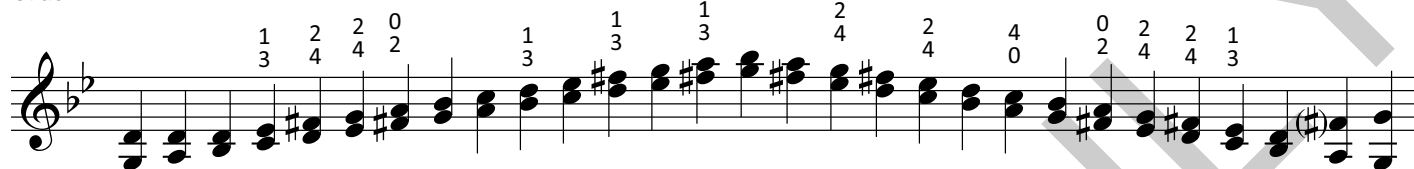


G harmonic minor

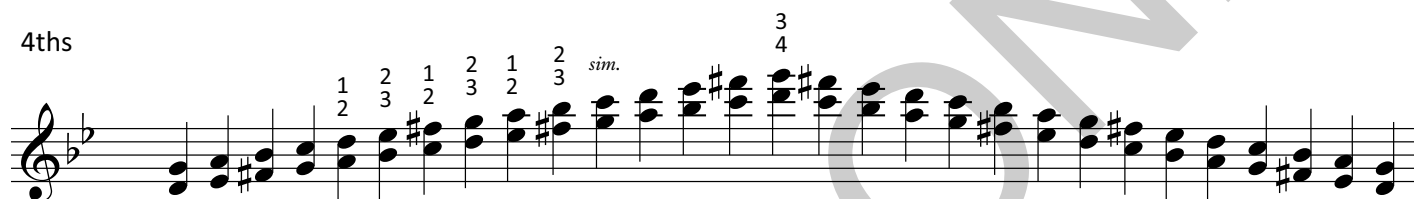
Unisons



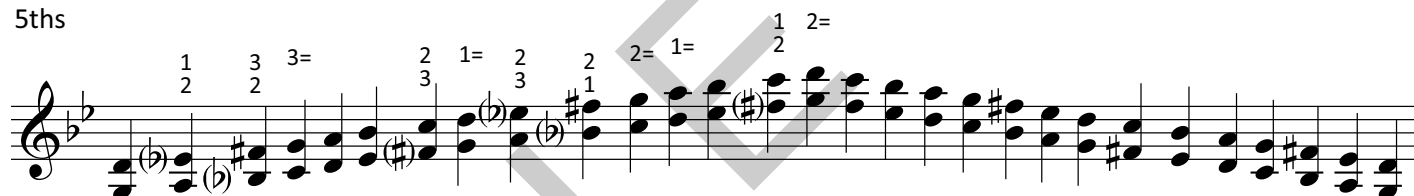
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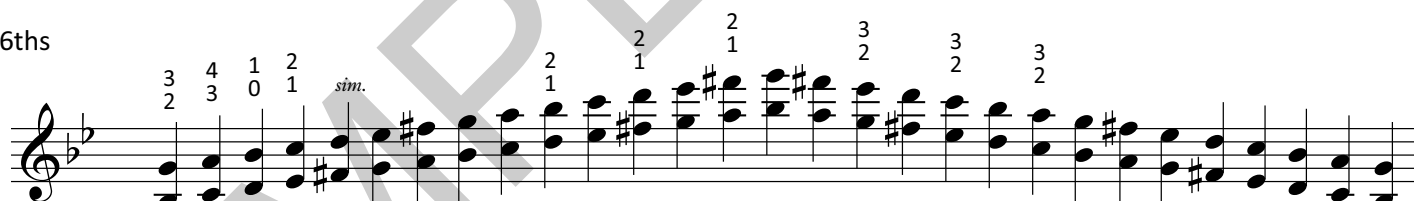
4ths



5ths



6ths



8ves

fingered
octaves

10ths



G major

Two staves of music for G major. The first staff shows the ascending scale with fingerings: 3 0, 4 1, sim., 3 0, 4 1, 3 0, 4 1, 3 0, 4 1. The second staff shows the descending scale with fingerings: 3 0, 4 1, 3 0, 4 1, sim.

G melodic minor

Two staves of music for G melodic minor. The first staff shows the ascending scale with fingerings: 3 0, 4 1, sim., 3 0, 4 1, 3 0, 4 1, 4 1, 4 1. The second staff shows the descending scale with fingerings: 3 0, 4 1, 3 0, 4 1, sim.

Ab major

Two staves of music for Ab major. The first staff shows the ascending scale with fingerings: 4 1, sim., III, II, I. The second staff shows the descending scale with fingerings: 4 1, sim.

Ab melodic minor

Two staves of music for Ab melodic minor. The first staff shows the ascending scale with fingerings: 4 1, sim., III, II, I. The second staff shows the descending scale with fingerings: 4 1, sim.

Left-Hand Pizzicato Scales and Arpeggios

(Bowing directions may be altered or replaced by right hand pizzicato)

G major

Two staves of music for G major. The first staff shows the scale from G4 to G5 with bowing directions (V for upbow, + for downbow) above each note. The second staff shows the arpeggio from G4 to G5 with bowing directions. The arpeggio is marked with a '3' for a triplet and a '2' for a doublet.

G melodic minor

Two staves of music for G melodic minor. The first staff shows the scale from G4 to G5 with bowing directions (V for upbow, + for downbow) above each note. The second staff shows the arpeggio from G4 to G5 with bowing directions. The arpeggio is marked with a '3' for a triplet and a '2' for a doublet.

Ab major

Two staves of music for Ab major. The first staff shows the scale from Ab4 to Ab5 with bowing directions (V for upbow, + for downbow) above each note. The second staff shows the arpeggio from Ab4 to Ab5 with bowing directions.

Ab melodic minor

Two staves of music for Ab melodic minor. The first staff shows the scale from Ab4 to Ab5 with bowing directions (V for upbow, + for downbow) above each note. The second staff shows the arpeggio from Ab4 to Ab5 with bowing directions.