

# **A Handbook for Teaching Shifting to the Intermediate Level Violin Student**

**By**

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## **Introduction**

Learning how to play the violin well can be a difficult and daunting task that requires years of dedication and hard work. Teaching the violin is no less of a challenge, because the violin teacher must have a well organized teaching method and a multitude of pedagogical materials to ensure the technical and musical development of the student. During the learning process, the teacher should introduce the student to a variety of violin techniques in order for the student to become an accomplished violinist and musician.

The violin student learns and solidifies many of his/her fundamental techniques during the intermediate level of violin study. The intermediate level is defined as “the level of skill development characterized by the learning of shifting, vibrato, and double stopping in the left hand, and martelé, spiccato, and playing of chords in the right hand” (Duguid, 1988, p. 18). The intermediate level is a critical period for the violin student. The study at this level should establish a higher degree of technique and should remedy any problems left from the elementary level (Hong, 1985, p. 2).

Shifting (the sliding of the left hand to a new position on the fingerboard) is one of the most important techniques that the violin student learns during the intermediate level. The successful mastery of shifting opens new technical and musical possibilities for the violin student, because the ability to shift into higher positions frees the student from the bondage of the elementary level and serves as a springboard to advanced violin study.

A pedagogical approach is needed to enable the contemporary violin teacher to teach shifting effectively and efficiently to the intermediate-level violin student. The

violin pedagogical literature abounds with different methods and recommendations on how to teach shifting, but there is little research dedicated exclusively to the pedagogy of shifting. The main goal of this handbook is to present a systematic and comprehensive pedagogical approach for the violin teacher in order to teach the technique of shifting. The major components of this approach are organized in an originally developed handbook by the author, which contains a pedagogical sequence and teaching material.

This handbook is based on the author's own dissertation "A Handbook for Teaching Shifting to the Intermediate-Level Violin Student" (Kanaan, 2007).

### **Pedagogical Remarks on Violin Shifting**

#### **The purposes of shifting**

- 1) Shifting extends the overall tonal range of the violin
- 2) It extends the tonal ranges of each of the four strings
- 3) It facilitates the playing of awkward passages and eliminates string crossings
- 4) It opens the door to technical mastery on the violin through the knowledge of all the positions and their fingerings
- 5) It relieves the tension of the left hand from being constantly locked in 1<sup>st</sup> position (especially during the elementary study of the violin)
- 6) It enhances the musical expression and interpretation of musical passages
- 7) It makes the slide or portamento possible on the violin

## **Types of shifts**

- 1) Same-finger shift (1-1, 2-2, 3-3, and 4-4 in an ascending and descending direction)
- 2) Two-finger shift, which can be subdivided into:
  - a) low-numbered to high-numbered finger ascending or vice versa descending  
(for example, 1-2, 1-3, 1-4, 2-3, 2-4, and 3-4 in an ascending direction)
  - b) high-numbered to low-numbered finger ascending or vice versa descending  
(for example, 2-1, 3-1, 4-1, 3-2, 4-2, 4-3 in an ascending direction)
- 3) Half shift (the thumb does not move from the original position while the hand and fingers extend to another position, and then come back to the original position)
- 4) Retarded or delayed shift (the fingers extend or contract to the new position, and then the hand and thumb follow the fingers)
- 5) Shift from an open string (the hand shifts during the sound of an open string)
- 6) Shift between two strings (the old and new positions are on two different strings)
- 7) Substitution shift (shift to the same pitch with different fingers on the same string or on two different strings)
- 8) The portamento (the audible slide which is used for its artistic effect)

## **The mechanics of shifting**

- 1) The hand and fingers must slide smoothly
- 2) The hand, thumb, fingers, wrist, and forearm must remain relaxed and must move together as a single unit (in shifting among the lower positions)
- 3) The hand shape must be maintained during the shift

- 4) The thumb must pass under the neck of the violin when reaching the fifth position and higher to allow the hand and fingers to maintain their shape above the fingerboard
- 5) The speed of the shift must be controlled
- 6) The pressure of the shifting finger must be minimized on the string
- 7) The speed and the pressure of the bow must be minimized during the shift
- 8) The finger must remain in contact with the string during the shift
- 9) The hand should shift on the beginning finger in two-finger shifts (this rule is very general and exceptions exist)
- 10) The left elbow must be mobile during the shift (the elbow moves to the right in ascending shifts and to the left in descending shifts)
- 11) Violin hold, balance, posture, and the use of proper accessories are crucial to the execution of successful shifts
- 12) The role of the ear is paramount in shifting (the combination of aural, tactile, and visual clues help the violinist to execute successful shifts)

### **When to shift**

- 1) Minimize the sound of the slide by shifting during a rest, after an open string, after a harmonic, during the same consecutive notes, during staccato notes, and after a dotted figure
- 2) Employ similar fingerings for similar passages (like in sequences)
- 3) Shift on strong or relatively strong beats (the concept of “rhythmic fingerings”)

- 4) Employ shifts that ensure the smallest shifting distance in order to affect a smooth and unnoticeable slide (like shifting with one finger on the half step)
- 5) Use contractions and extensions in shifting to accomplish smooth and secure shifts

### **Pedagogical sequence to teach shifting**

- 1) Pre-shifting exercises to loosen the hand and to introduce the entire fingerboard and the basic shifting movement (for example, “Hand Shuttling”)
- 2) Position exercises and etudes to consolidate the “feel” and to learn the fingering of each position without shifting (for example, playing scales in one position)
- 3) Shifting exercises and etudes to develop the shifting movement and the smooth connection among the positions (all shift types must be included like one-finger and two-finger shifts)
- 4) Two and three-octave scales and arpeggios to further consolidate position playing and shifting
- 5) Musical repertoire to apply and refine the techniques of position playing and shifting within a musical context

## **The Handbook**

The handbook provides pedagogical material for teaching shifting to the intermediate-level violin student and organizes this material into a pedagogical sequence. The handbook contains musical exercises, scales, etudes, and original musical repertoire created by the author to facilitate the learning of shifting and position playing.

The creation of the technical and musical material in the handbook is based on the following criteria:

- 1) No preference is given to one position over another. Whenever possible, odd-numbered and even-numbered positions are given equal treatment in the material
- 2) All the main shift types are represented in the material (shift to a harmonic, shift during an open string, one-finger shift, two-finger shift, shift with reversal of fingers, substitution shift, and delayed shift)
- 3) Variety in keys, rhythms, articulations, bowings, positions, fingers, and strings is emphasized in the material
- 4) Inclusion of non major/minor material such as the whole tone and octatonic scales in order to accustom the student to some of the harmonic language of the twentieth century
- 5) Emphasis on student-teacher collaboration in the learning process (especially in the last section of the handbook which contains violin duets for the student and teacher)

The handbook is divided into six major sections which are pedagogically sequential. Those sections are the following:

- 1) Review of first-position scales and arpeggios
- 2) Pre-shifting exercises
- 3) Position exercises and etudes
- 4) Shifting exercises and etudes
- 5) Two-octave and three-octave scales and arpeggios (with double-stop scales)
- 6) Musical repertoire (in the form of violin duets)

Each exercise, scale, etude, or duet is arranged in a convenient way on one to three sheets of paper in order to facilitate its use by the student and teacher in the classroom.

Photocopy right is granted to violin teachers and students who would like to use the musical material during the violin lesson.



## **Section One (Review of First-Position Scales and Arpeggios)**

Before the intermediate-level violin student can begin the study of shifting and position playing, he/she should have a solid feel and knowledge of the fingerings of the 1<sup>st</sup> position. The following major and minor scales allow the student to review the finger patterns in all the fundamental keys within the confines of 1<sup>st</sup> position (this section can be skipped if the student demonstrates good intonation within 1<sup>st</sup> position). Those major and minor scales are based on the Hřfimaly scale system and are arranged in an ascending stepwise fashion (for example, G-Major, G-Minor, A-Major, A-Minor, etc.). Furthermore, a chromatic scale and two whole tone scales are included to familiarize the student with the sound of those scales in 1<sup>st</sup> position.

To refine the performance of the scales and arpeggios, the teacher can suggest to the student the use of different bowings and articulations. As an example, the scales can be performed with the following bowings:

- 1) Detaché
- 2) Martelé
- 3) Legato
- 4) Staccato
- 5) Spiccato
- 6) Ricochet

In addition, the scales and arpeggios can be articulated by playing one, two, four, or eight notes within one bow direction. However, the scales must be performed proportionately faster when more notes are played within one bow direction.

## Review of First-Position Scales and Arpeggios

G-Major



G-Minor



A-Major



A-Minor



B $\flat$ -Major

## B-Minor



## C-Major



## C-Minor



## D-Major



## D-Minor



## E♭-Major



## E-Minor





## **Section Two (Pre-Shifting Exercises)**

It is advisable to familiarize the violin student with pre-shifting motions in the elementary level of instruction (preferably within the first couple of months of instruction). The advantages of this approach have already been discussed in the previous chapters. However, many violin students reach their intermediate instructional stage with little or no previous experience with position playing and shifting motion.

The teacher should commence with the pre-shifting exercises which are outlined in the following pages. Those exercises are designed to accustom the left hand and fingers to the whole fingerboard and to the actual shifting motion. The exercises are based on some of the “Action Studies” by Rolland (2000). They are the following:

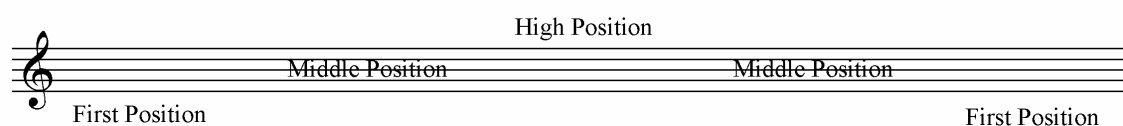
1) “Hand Shuttling” enables the student to experience the shifting motion without touching the string with the fingers and without using the bow. The teacher must observe that the student maintains a correct hand shape while moving the hand smoothly along the fingerboard. The thumb of the left hand must pass under the neck of the violin, after arriving at the 5<sup>th</sup> position, in order to let the hand reach the higher positions comfortably. This exercise can be combined with finger tapping, left hand pizzicato, or left arm swinging to alleviate any tensions in the hand.

2) “String Polishing” provides the student with an opportunity to execute the shifting motion while touching the string lightly with one finger. This exercise can be performed with and without the bow. When the student uses the bow, the teacher should alert the student to listen to the sound of all the harmonics that are produced by the shifting finger.

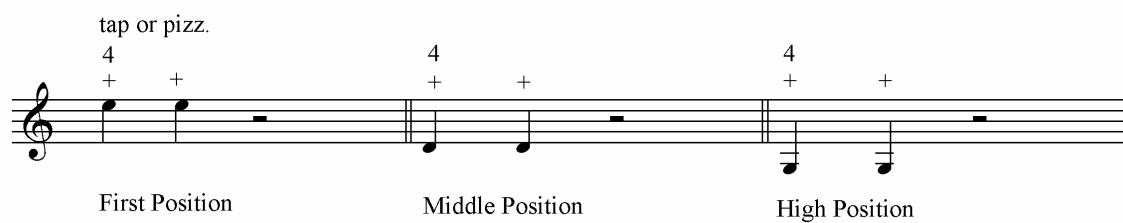
3) “Matching Natural Harmonics” enables the student to match the sound of several harmonics in the 1<sup>st</sup> position with harmonics in the high positions. This exercise requires more pitch specificity as opposed to “Hand Shuttling” and “String Polishing” which do not require the production of specific pitches. The second part of this exercise asks the student to shift to the octave harmonic with the third and fourth fingers respectively.

# Hand Shuttling

**Exercise 1** - Shuttle the hand and fingers along the fingerboard between first, middle, and high positions



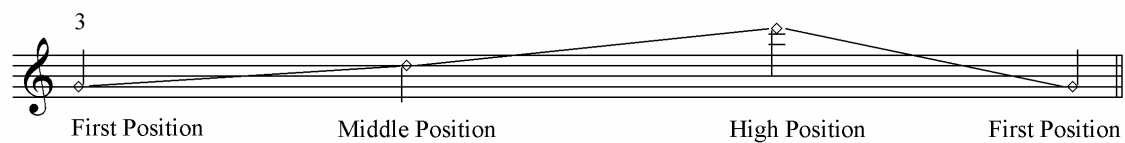
**Exercise 2** - Combine shuttling with finger tapping or left-hand pizzicato





## String Polishing

**Exercise 1** - Polish the D string by lightly touching the string with the third finger and shuttling from first position towards the high position and back without using the bow



**Exercise 2** - Repeat the previous exercise with the bow and listen to the resulting harmonics

**Exercise 3** - Polish the string with the 4th, 2nd, and 1st fingers on the A, E, and G strings (with and without the bow)



### **Section Three (Position Exercises and Etudes)**

The purpose of position exercises is to accustom the left hand and fingers to play within each of the first eight positions (without any shifting). The main goal is to consolidate the feel of the positions in the hand and fingers and to learn the fingering of each individual position.

The following two exercises “Finding Third Position” allow the student to locate the notes of the 3<sup>rd</sup> position on each individual string by comparing the sound of the notes in 1<sup>st</sup> position with the same notes in 3<sup>rd</sup> position. Later, the four strings are combined to produce a two-octave major scale, which is played entirely in the 3<sup>rd</sup> position.

The two exercises are written in the keys of C-Major and D-major to provide different finger pattern possibilities within 3<sup>rd</sup> position. The teacher must alert the student to the finger pattern on each string (the succession of half and whole steps) in order for the student to successfully perform the exercises. It is especially important for the student to be aware of the location of the half step on each string (the student must know which two successive fingers play the half step).

## Finding Third Position (C-Major)

First Position                      Third Position

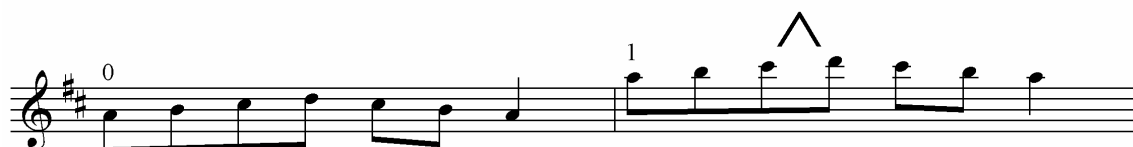
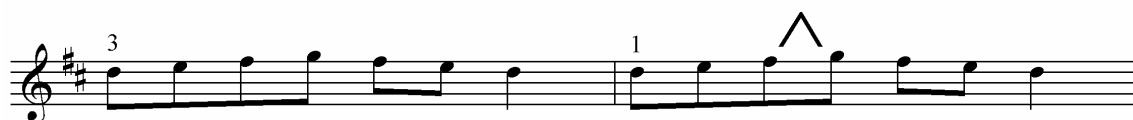
The image displays four staves of musical notation in C-major, illustrating the transition from first to third position. Each staff is divided into two measures: the first measure is in first position, and the second measure is in third position. The notation includes fingerings (1, 2, 3, 4) and a wedge symbol (^) indicating a half step. The first staff shows a simple scale run. The second staff shows a more complex scale run with a half step. The third staff shows a scale run with a half step. The fourth staff shows a scale run with a half step. The wedge symbol (^) indicates a half step.

^ indicates a half step

## Finding Third Position (D-Major)

First Position

Third Position



^ indicates a half step



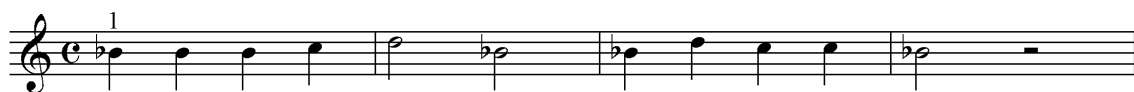
The previous two exercises have introduced the student to position playing for the first time through the study of the 3<sup>rd</sup> position. However, the remaining position exercises will give no preference to one position over another.

The following exercise “Transposing a Melody Fragment” asks the student to transpose a short melody through eight positions. The student should firmly establish the intonation and the finger pattern of the melody in the 1<sup>st</sup> position, because the same melody will be transposed to the higher positions by using the same finger pattern. The teacher can suggest to the student to softly test the sound of the beginning note of each new position in order to establish a correct hand placement within that position (some beginning notes can be tested with open strings, some interior notes can be tested with the octave harmonic, and other notes can be tested with 1<sup>st</sup>-position notes).

The teacher must observe that the student maintains a correct hand shape in all the positions (the thumb must pass under the neck of the violin after approximately the 5<sup>th</sup> position). The student must observe the relatively decreasing distance between the fingers with each successive higher position. In addition, the teacher can suggest to the student to keep his/her first finger down in each position to create a firm foundation for the left hand fingers and to establish a more secure intonation.

## Transposing a Melody Fragment

1st position



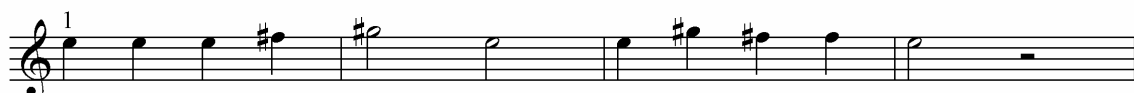
2nd position



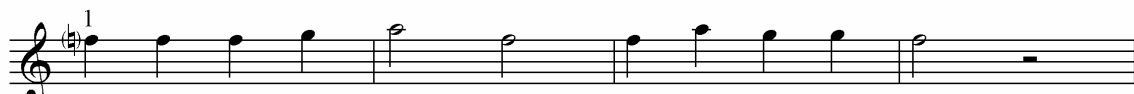
3rd position



4th position



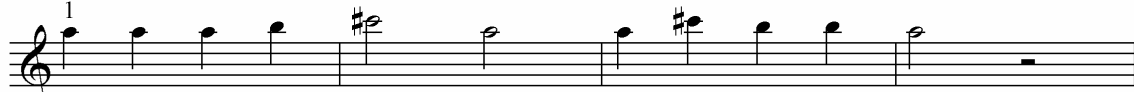
5th position



6th position



7th position



8th position



Play this exercise on the D, G, and E strings

The following exercises present one-position major and minor scales (up to eight positions). The first two exercises “One-Position Scales in Major Keys” and “One-Position Scales in Minor Keys” use the same finger pattern which is established in the 1<sup>st</sup> position in order to play the other scales in the higher positions. The student should especially pay attention to the melodic minor scales, because the descending finger pattern is different from the ascending pattern. Also, the student should notice the decreasing relative distance between the fingers with each successive higher position.

The last three exercises feature one-position scales that are played entirely within one key (G-Major, G-Minor, and Ab-Major). Unlike the first two exercises, those exercises feature a changing finger pattern in every position (because the same key is used throughout one exercise). The student should observe the changing location of the half step on every string and within every position. As a pedagogical aid for the student, the teacher can mark all the half steps with the half step sign.



## One-Position Scales in Major Keys

A-Major



B-Major



C-Major



D-Major



E-Major



F-Major



G-Major



A-Major



## One-Position Scales in Minor Keys

A-Minor



B-Minor



C-Minor



D-Minor



E-Minor



F#-Minor



G-Minor

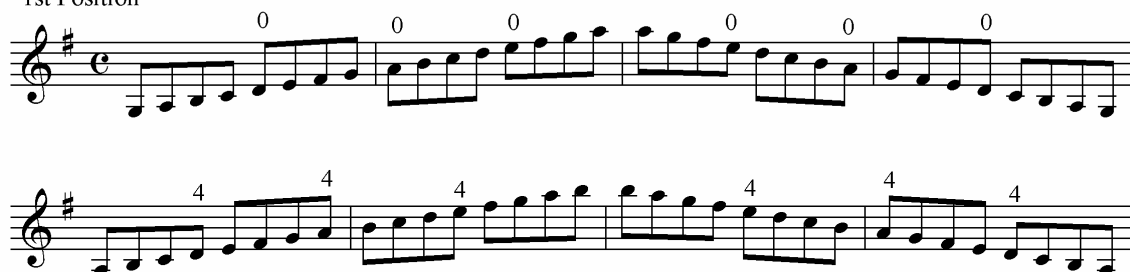


A-Minor



## One-Position Scales (G-Major)

1st Position



2nd Position



3rd Position



4th Position



5th position



6th Position

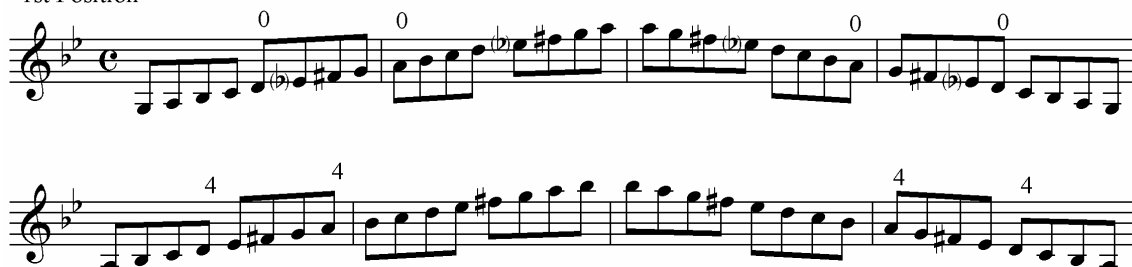


7th Position



## One-Position Scales (G-Minor)

1st Position



2nd Position



3rd Position



4th Position



5th Position



6th Position



7th Position



## One-Position Scales (A $\flat$ -Major)

1st Pos.



2nd Pos.



3rd Pos.



4th Pos.



5th Pos.



6th Pos.



7th Pos.



8th Pos.



The following exercise “Stretching to the Harmonic in Third Position” features a fourth finger stretch to the octave harmonic within 3<sup>rd</sup> position. Stretching with either the first or fourth fingers can be done within any position and on any string. This technique increases the tonal range of an individual position without resorting to shifting. The following exercise allows the student to practice stretching to the octave harmonic on each string, and then to combine all four strings in a two-octave scale. Also, the teacher can create similar exercises for the student to stretch the first or fourth fingers within other positions (2<sup>nd</sup>, 4<sup>th</sup>, 5<sup>th</sup>, etc.).

## Stretching to the Harmonic in Third Position

The musical score is written for guitar in treble clef, 4/4 time. It consists of six staves of music. The first four staves show a sequence of eighth-note patterns with fingerings (1, 4, 0, 4) and a final descending sequence (1, 3, 2, 4, 3, 0, 4, 0, 3, 4, 2, 3, 2, 1). The fifth and sixth staves show a sequence of eighth-note patterns with fingerings (1, 4, 0, 1) and a final descending sequence (1, 4, 0, 4). The score is titled "Stretching to the Harmonic in Third Position".

The following two exercises “Chromatics in One Position” and “Double Stops in One Position” allow the student to further refine his/her position playing technique. The performance of chromatic passages requires the use of successive half steps with a horizontal finger movement (1-1, 2-2, 3-3, and 4-4). This is an important skill that must be mastered by the violinist within every position.

Double stops are executed by placing the finger(s) on two strings simultaneously and applying an equal bow pressure on the two strings. Those two exercises provide the student with an opportunity to practice chromatic passages and double stops within the first five positions on all the strings. The teacher can suggest to the student to keep his/her first finger down within each individual position to create a solid foundation for the left hand fingers and to establish a secure intonation (many notes can be tested with open strings or string harmonics).



## Chromatics in One Position

Sul A

The exercise consists of five staves of music, each containing two measures separated by a double bar line. The notation is in treble clef with a key signature of one flat (B-flat). The notes are as follows:

- Staff 1: Measure 1: B2 (1), B-flat2 (1), C3 (2), C-sharp3 (2), D3 (3), D-sharp3 (3), E3 (4), E-sharp3 (4). Measure 2: D-sharp3 (4), D3 (3), C-sharp3 (3), C3 (2), B-sharp2 (2), B2 (1), A2 (1).
- Staff 2: Measure 1: B2 (1), B-flat2 (1), C3 (2), C-sharp3 (2), D3 (3), D-sharp3 (3), E3 (4), E-sharp3 (4). Measure 2: D-sharp3 (4), D3 (3), C-sharp3 (3), C3 (2), B-sharp2 (2), B2 (1), A2 (1).
- Staff 3: Measure 1: B2 (1), B-flat2, C3, C-sharp3, D3, D-sharp3, E3, E-sharp3. Measure 2: D-sharp3, D3, C-sharp3, C3, B-sharp2, B2, A2.
- Staff 4: Measure 1: B2 (1), B-flat2, C3, C-sharp3, D3, D-sharp3, E3, E-sharp3. Measure 2: D-sharp3, D3, C-sharp3, C3, B-sharp2, B2, A2.
- Staff 5: Measure 1: B2 (1), B-flat2, C3, C-sharp3, D3, D-sharp3, E3, E-sharp3. Measure 2: D-sharp3, D3, C-sharp3, C3, B-sharp2, B2, A2.

Play the exercise on the D, G, and E strings

## Double Stops in One Position

Play on the D and G strings throughout (do not lift the first finger)

The image displays four staves of musical notation for double stops on the D and G strings. The first staff is in C major and includes fingerings: 1, 2, 3, 4, 2, 1, 2, 1, 1. The second staff is in D major. The third staff is in E major. The fourth staff is in F# major. Each staff contains two measures of music, with a double bar line in the middle. The notes are represented by stems with flags, indicating they are to be played simultaneously.

Play the previous exercise on the A and D strings, and the E and A strings

The following material features short etudes in the 2<sup>nd</sup>, 3<sup>rd</sup>, 4<sup>th</sup>, 5<sup>th</sup>, 6<sup>th</sup>, and 7<sup>th</sup> positions created by the author for further refinement of position playing. The purpose of the etudes is to give the student an opportunity to develop and apply the learned techniques within a semi-musical setting (etudes can be thought of as occupying a middle location between pure exercises and musical repertoire).

The following etudes incorporate scale passages, arpeggio passages, chromatic lines, broken-chord figurations, string crossings, and finger stretching. The first note of each etude is tested with a 1<sup>st</sup>-position note or with an open string. The teacher can suggest to the student to keep certain fingers down to provide an anchor for the other fingers. In addition, roman numerals are used in the etudes to designate the violin strings (I, II, III, and IV).

Also, the violin student can further develop his/her position playing technique with the following suggested etudes and exercises:

*Sixty Studies Op. 45* by Wohlfahrt, book II, etudes No. 31, 32, 33, and 34

*Fifty Easy Melodious Studies Op. 74* by Wohlfahrt, book II, etudes No. 26, 27, and 29

*Studies for Violin Op. 32* by Sitt, books II and IV

*24 Caprices* by Rode, etudes No. 3, 9 (the Allegretto), and 10

*School of Violin Technics Op. 1* by Ševčík, part II

*The School of Violin-Technics* by Schradieck, book I (selected exercises)

## Etude in Second Position

Rami Kanaan

**Moderato**

## Etude in Third Position

**Moderato**

## Etude in Fourth Position

Rami Kanaan

Handwritten musical score for "Etude in Fourth Position" by Rami Kanaan. The score is written on four staves in treble clef, with a key signature of three sharps (F#, C#, G#) and a common time signature (C). The first staff begins with a finger number '0' above the first note and a Roman numeral 'IV' above the second note. The second staff continues the melody. The third staff includes finger numbers 2, 2, 3, 3, 4, 1, 1, 2, 2, 3, 3, 4, 1, 1, 2, 2, 3, 4, 4, 1. The fourth staff includes finger numbers 1, 2, 2, 3, 4, 1, 2, 3, 4, 1, 2, 3, 4, 1. The piece concludes with a double bar line.

## Etude in Fifth Position

Handwritten musical score for "Etude in Fifth Position" by Rami Kanaan. The score is written on four staves in treble clef, with a key signature of one flat (Bb) and a common time signature (C). The first staff begins with a finger number '2' above the first note, a Roman numeral 'III' above the second note, and a finger number '0' above the third note. The second staff continues the melody. The third staff includes finger numbers 2, 2, 3, 3, 4, 1, 1, 2, 2, 3, 3, 4, 1, 3. The fourth staff includes finger numbers 4, 3, 1, 1, 4, 3, 1, 2, 3, 4, 1, 2, 3. The piece concludes with a double bar line.

## Etude in Sixth Position

Rami Kanaan

Four staves of music in treble clef, key of D major (two sharps), and common time (C). The piece is titled "Etude in Sixth Position" by Rami Kanaan. The notation includes various musical symbols such as notes, rests, and fingerings. The first staff begins with a 0 (open string) and a 2 (second fret) on the D string, with a Roman numeral IV above the second measure. The piece concludes with a double bar line and a common time signature.

## Etude in Seventh Position

Four staves of music in treble clef, key of F# major (three sharps), and common time (C). The piece is titled "Etude in Seventh Position". The notation includes various musical symbols such as notes, rests, and fingerings. The first staff begins with a 0 (open string) and a 2 (second fret) on the D string, with a Roman numeral IV above the second measure. The piece concludes with a double bar line and a common time signature.

#### **Section Four (Shifting Exercises and Etudes)**

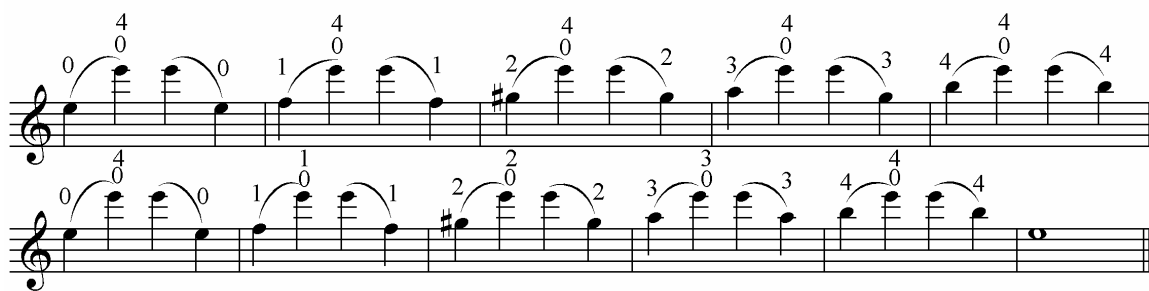
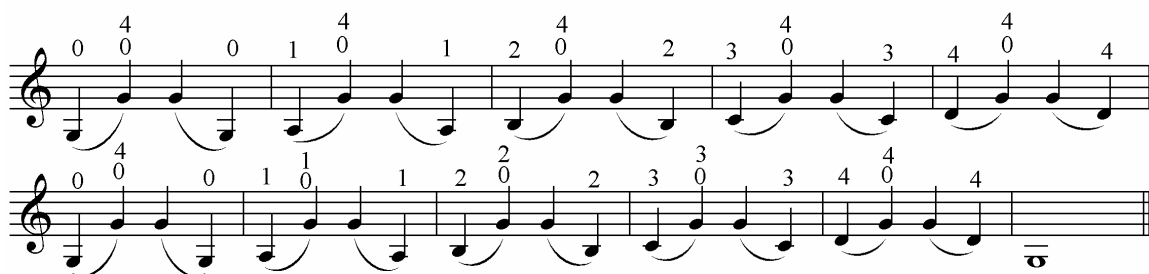
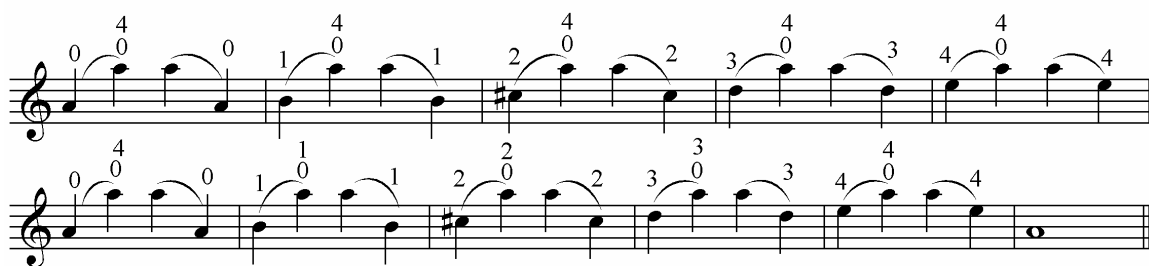
Shifting exercises provide the violin student with an opportunity to experience the mechanical, tactile, and aural aspects of the shifting motion. As previously discussed, shifts can be categorized into several major types depending on the fingers that are being used or the actual details of the movement (for example, one-finger shift, two-finger shift, delayed shift, etc.). Each shift type requires its own set of exercises to train and develop the unique characteristics of that category. The next two exercises introduce the student to shifts to the octave harmonic and shifts from an open string, respectively.

It is beneficial to introduce the violin student to the shifting movement by using shifts to the octave harmonic. This type of shift requires a light touch and minimum hand and finger tension while playing the harmonic. Furthermore, the shift to the octave harmonic provides security and stability for the developing violinist, as it is much easier to shift and locate the octave harmonic than to shift and locate non-harmonic notes.

The first exercise “Shifting to the Octave Harmonic” is divided into four segments, which cover the four strings respectively. Each segment is comprised of two lines: the first line employs shifts to the octave harmonic with two different fingers (1-4, 2-4, and 3-4); the second line uses same-finger shifts to the harmonic (1-1, 2-2, 3-3, and 4-4).

In the second exercise “Shifting from an Open String,” the hand shifts to the next position during the sound of the open string. This type of shift is also a good introduction to the shifting motion, as it does not involve the actual sliding of the finger on the string. The student can concentrate on the shifting motion of the hand without the added difficulty of sliding the finger on the string (less hand and finger tension).

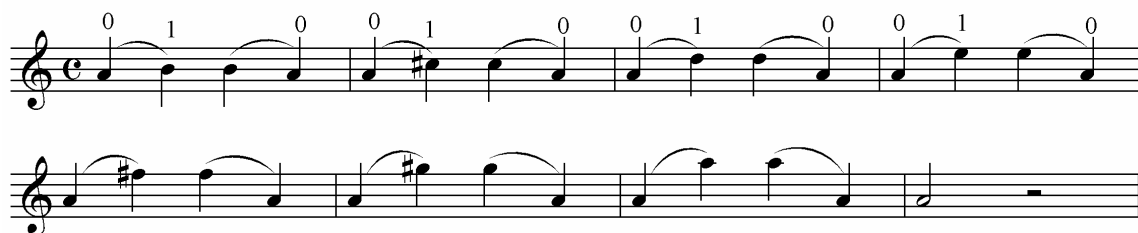
## Shifting to the Octave Harmonic



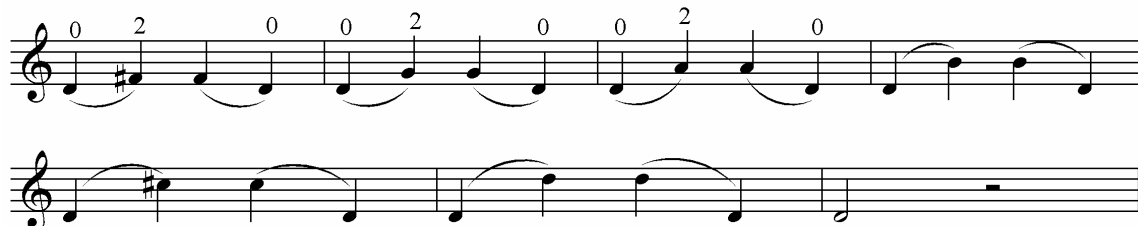


## Shifting from an Open String

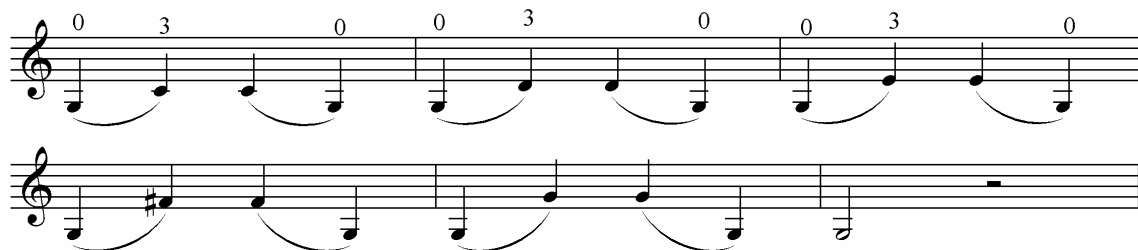
Sul A



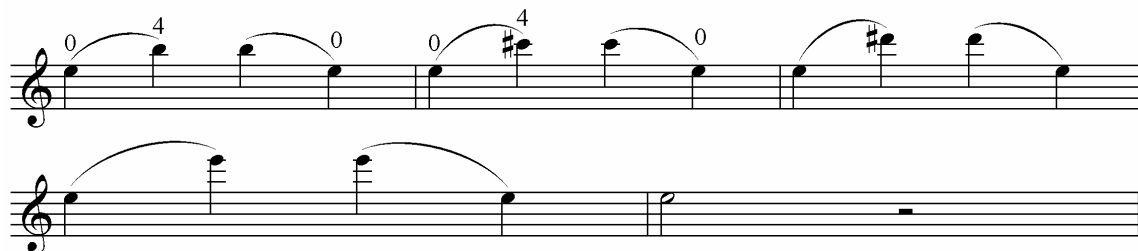
Sul D



Sul G



Sul E



Play each of the previous exercises on the other strings

The following exercise “One-Finger Scales” features one-octave major scales played on one string by using the same finger. The exercise can be a good introduction to the sliding motion of the finger, as it involves a solid finger pressure on the string.

The teacher should observe that the student maintains a correct hand shape while shifting (the thumb passes under the neck after 5<sup>th</sup> position). The teacher should also alert the student to the succession of the half and the whole steps of the scale in order for the student to estimate the shifting distance from one note to the next. As a pedagogical aid, the teacher can label all the half steps with the half step sign. Furthermore, the scales can be performed in all the major and minor keys by playing on each of the four strings and by employing each of the four fingers.



The following exercise “One-Finger Shifting Exercises” employs same-finger shifts that outline melodic intervals (from the interval of the second through the octave), which are played on one string. The student must pay attention to the smoothness and speed of the shift, while maintaining a correct hand shape throughout the shift. The teacher should constantly remind the student to keep a relaxed left hand and to check for any excessive tensions (for example, a tense thumb or first finger can obstruct the shifting motion with an excessive pressure on the violin neck).

It is important that the student masters the following exercise, because one-finger shifts are the basis for all the other shift types. Each exercise can be practiced in the following two ways:

- 1) Legato (as written)
- 2) Martelé (without slurs and with slight separation between the two notes of the shift)

Each segment of the exercise can also be started in 2<sup>nd</sup> or 3<sup>rd</sup> position.

## One-Finger Shifting Exercises

Sul A

The first staff of the Sul A exercise shows the first two measures of a C major scale starting on A2. The first measure contains two eighth notes (A2, B2) and the second measure contains two eighth notes (C3, D3), both marked with a '1' above them. The third staff continues the scale with two measures of eighth notes (E3, F3) and (G3, A3), followed by a whole note B3 and a whole rest.

Sul D

The first staff of the Sul D exercise shows the first two measures of a C major scale starting on D2. The first measure contains two eighth notes (D2, E2) and the second measure contains two eighth notes (F2, G2), both marked with a '2' above them. The third staff continues the scale with two measures of eighth notes (A2, B2) and (C3, D3), followed by a whole note E3 and a whole rest.

Sul G

The first staff of the Sul G exercise shows the first two measures of a C major scale starting on G2. The first measure contains two eighth notes (G2, A2) and the second measure contains two eighth notes (B2, C3), both marked with a '3' above them. The third staff continues the scale with two measures of eighth notes (D3, E3) and (F3, G3), followed by a whole note A3 and a whole rest.

Sul E

The first staff of the Sul E exercise shows the first two measures of a C major scale starting on E2. The first measure contains two eighth notes (E2, F2) and the second measure contains two eighth notes (G2, A2), both marked with a '4' above them. The third staff continues the scale with two measures of eighth notes (B2, C3) and (D3, E3), followed by a whole note F3 and a whole rest.

Play each exercise on the other strings

The following exercise features two-finger shifts. In this case, the student shifts between two different fingers (1-2, 2-3, 3-4, 1-3, 2-4, and 1-4) in an ascending and descending direction. The student should observe the same remarks outlined in the previous one-finger shifting exercise.

Each segment of the exercise can be practiced with the “disappearing intermediate note” technique as outlined in the actual exercise sheets. The use of the intermediate note in the practice of two-finger shifts is very useful, because it accustoms the student to always shift on the beginning finger. The ending finger merely falls in place when the hand reaches the new position.

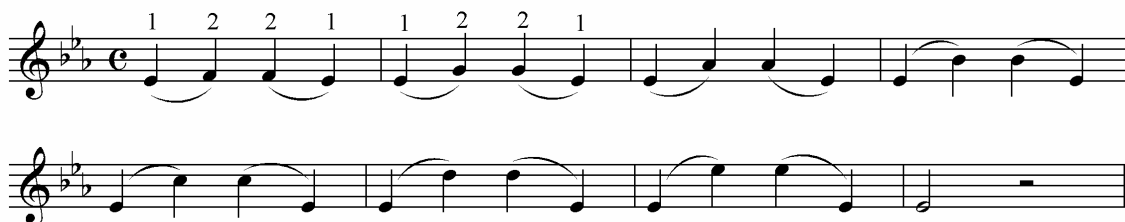
Each exercise can be practiced in the following two ways:

- 1) Legato (as written)
- 2) Martelé (without slurs and with slight separation between the two notes of the shift)

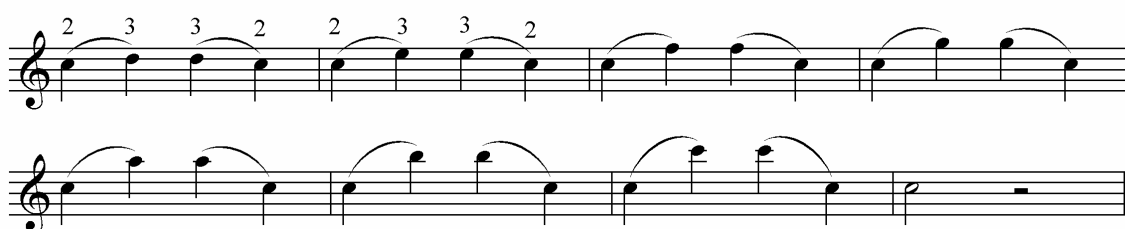
In addition, each exercise segment can be started in the 2<sup>nd</sup> or 3<sup>rd</sup> position.

## Two-Finger Shifting Exercises

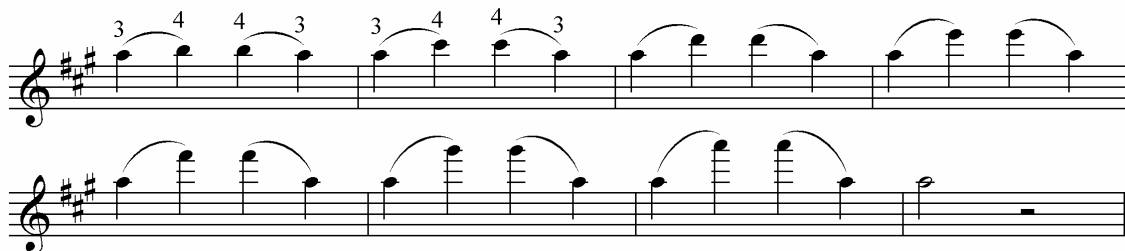
Sul D



Sul A



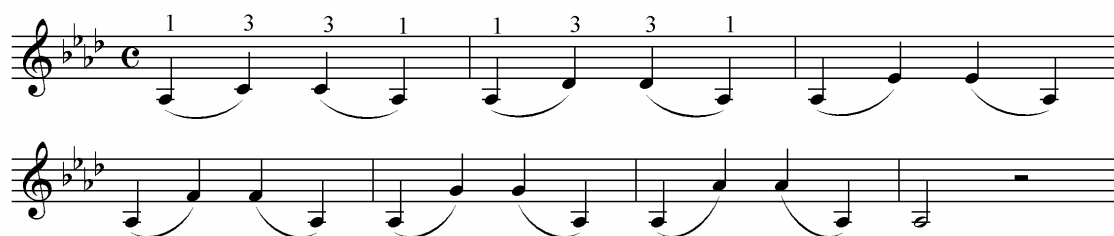
Sul E



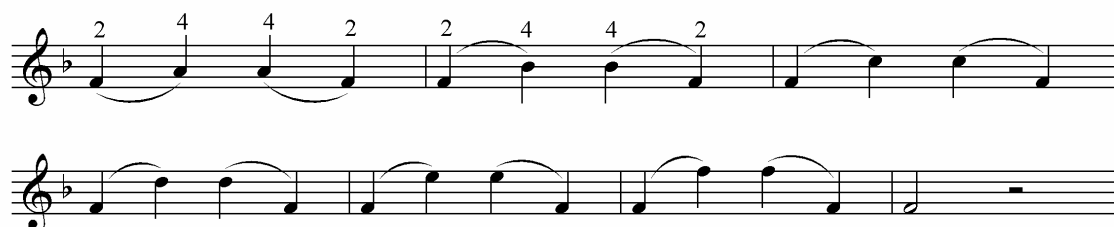
Each measure of the previous exercises can be practiced with the "gradually disappearing intermediate note" in the following way



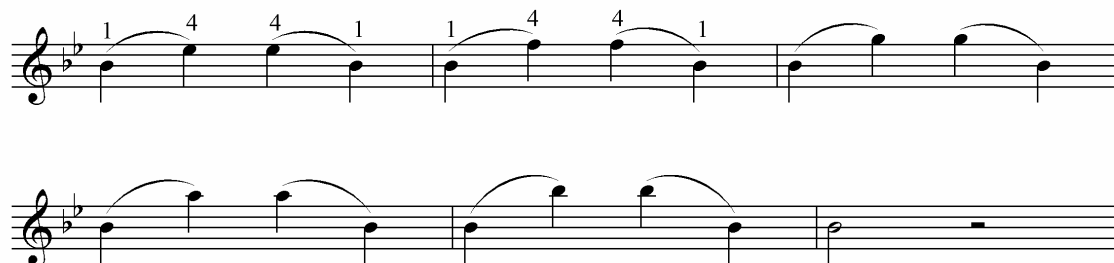
## Sul G



## Sul D



## Sul A



Each measure of the previous exercises can be practised with the "gradually disappearing intermediate note" in the following way





The following two exercises feature shifting with a reversal of fingers. This type of shift is used in stepwise scale-like passages (for example, a shift from the second to the first finger in an ascending direction or a shift from the second to the third finger in a descending direction).

The first exercise “Shifting with Reversal of Fingers” develops this shift type on each string. To execute the shift in the ascending direction, the beginning finger must be substituted with the ending finger during the shift. However, the hand must shift on the beginning finger in the descending direction (like in two-finger shifts). Each segment of the exercise can be started in 2<sup>nd</sup> or 3<sup>rd</sup> position.

The second exercise “One-String Scales” is a good application of the shift with a reversal of fingers. Those one-string major and minor scales start from an open string, from the first finger in 1<sup>st</sup> position, from 2<sup>nd</sup> position, and from 3<sup>rd</sup> position. In addition, a one-string whole tone scale is also included. The scales should be played on each of the four strings to experience the shifting motion on each individual string.

## Shifting with Reversal of Fingers

Sul E

Sul A

Sul D

Play each exercise on the other strings

Also, play on each string by starting in second position in the following way

## One-String Scales

Sul G

0 1 1 2 2

0 1 1 2 2

1 1 1 2 2

1 1 1 2 2

1 1 1 2 2

1 1 1 2 2

1 1 1 2 2

1 1 1 2 2

Whole tone scale

0 1 2 3 4 2 1

1 1 2 3 4 3 2

Play the previous exercises on the D, A, and E strings

The following exercise features two distinct types of shifts: substitution shifts and delayed shifts. A substitution shift is a shift to the same note but with a different finger (sometimes on a different string). In a delayed shift, the finger stretches to the new position before moving the hand, and then the hand and thumb follow. This type of shift allows for a smooth and unnoticeable execution of the shift by usually connecting two adjacent positions. The delayed shift can greatly expand the technique of the violinist and it should be assimilated into his/her practice routine.

## Substitution Shifts and Delayed Shifts

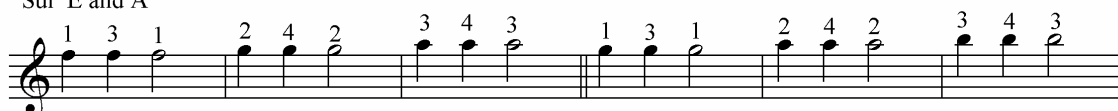
### Substitution Shifting Exercises

Sul A



Play the previous exercise on the D, G, and E strings

Sul E and A



Play the previous exercise between the A and D strings, and the D and G strings respectively

Sul E Sul A Sul D Sul G Sul D Sul A Sul E



### Delayed Shifting Exercise

In the following exercise reach with the finger first, then move the whole hand

Sul A



Play the previous exercise on the D, G, and E strings

The following “Exercise for all Shift Types” allows the student to practice all the fundamental shifting categories within one exercise. The student should observe all the previous remarks pertaining to each shift type.

The next etude “Shifting Etude in G” can refine the shifting technique of the student within a semi-musical setting. The first phrase of the etude uses alternating shifts between 1<sup>st</sup> and 3<sup>rd</sup> positions and shifts during an open string. The second phrase uses shifts between 1<sup>st</sup> and 2<sup>nd</sup> positions. The third phrase uses shifts between 1<sup>st</sup> and 3<sup>rd</sup> positions without the use of open strings. Finally, the last phrase uses the first three positions in a sequential pattern to execute descending scale-like figurations.

In addition, the violin student can further develop his/her shifting technique with the following suggested etudes and exercises:

*Elementary and Progressive Studies* by Kinsey, sets II and III

*Fifty Easy Melodious Studies Op. 74* by Wohlfahrt, book II, etudes No. 30, 36, 41, and 45

*Introducing the Positions* by Whistler, volumes I and II

*Elementary and Progressive Studies* by Kayser, etudes No. 13, 17, 26, 27, 29, and 31

*Studies for the Violin* by Sitt, books III and IV

*Twenty-Four Exercises Op. 37* by Dont, etudes No. 2, 3, 11, 16, and 18

*Melodious and Progressive Studies* by Mazas, etudes No. 7, 9, 20, 31, 35, and 38

*School of Violin Technics* by Ševčík, part III (shifting exercises)

*Shifting the Position and Preparatory Scale-Studies Op. 8* by Ševčík

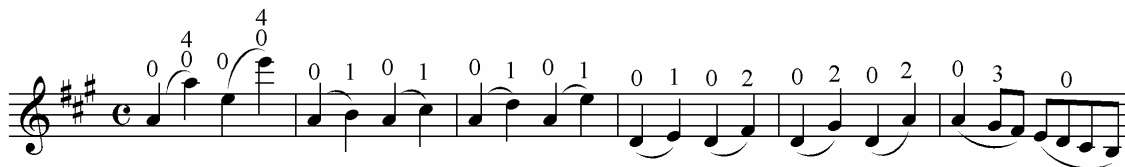
*42 Studies* by Kreutzer, etudes No. 2, 11, 12, 26, and 30

*24 Caprices* by Rode, etudes No. 2, 5, 6, 7, 11, and 21

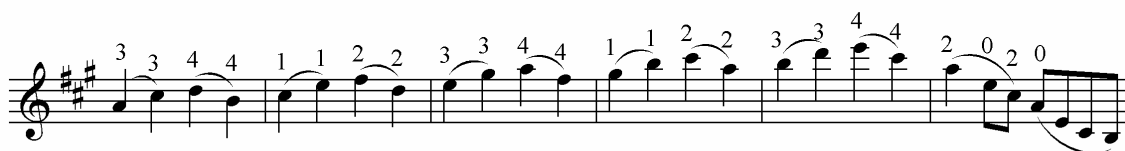
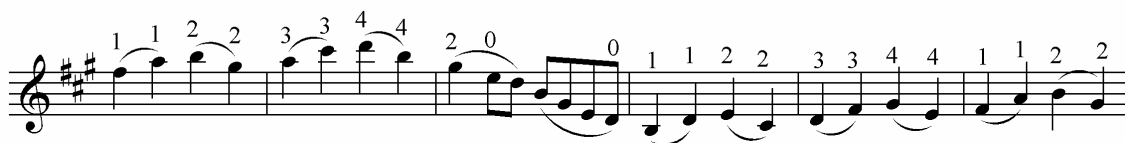
## Exercise for all Shift Types

Rami Kanaan

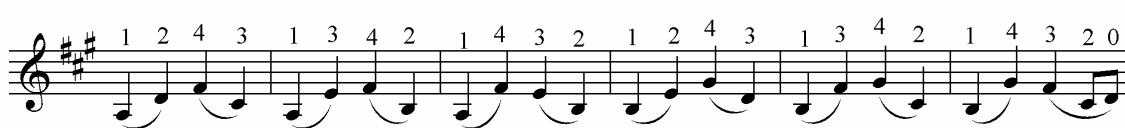
shifts from an open string



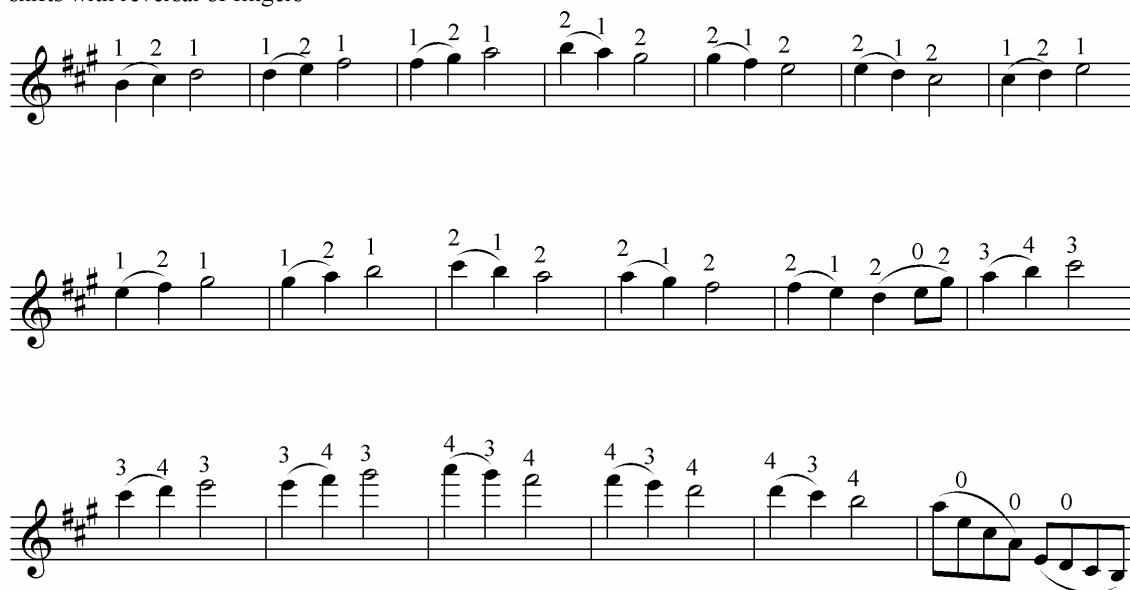
one-finger shifts



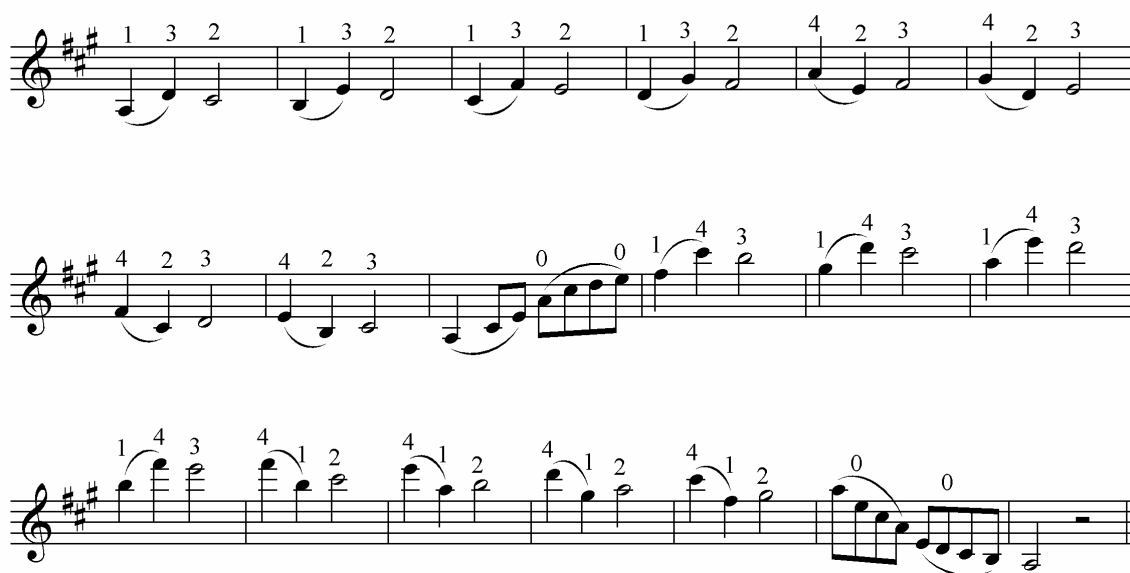
two-finger shifts



shifts with reversal of fingers



delayed shifts





## Shifting Etude in G

**Rami Kanaan**

This musical score is for a section of 'The Firebird' by Igor Stravinsky. It is written for a single melodic line in G major, 2/4 time. The piece is characterized by its intricate rhythmic patterns, featuring a high density of sixteenth and thirty-second notes. The score is divided into measures, with measure numbers 1, 6, 11, 16, 21, 26, 31, 37, and 42 indicated. Dynamic markings include *f* (forte), *p* (piano), and *cresc.* (crescendo). The score also includes fingering numbers (1, 2, 3, 4) and breath marks (V). The notation is presented on a single staff with a key signature of one sharp (F#) and a 2/4 time signature.

### **Section Five (Two-Octave and Three-Octave Scales and Arpeggios)**

Scales and arpeggios are the daily bread of the violinist, because many technical benefits can be achieved through their continuous practice. Further development and refinement in the techniques of shifting and position playing can be accomplished by practicing scales and arpeggios (including scales in double stops) in a variety of keys, rhythms, and bowings.

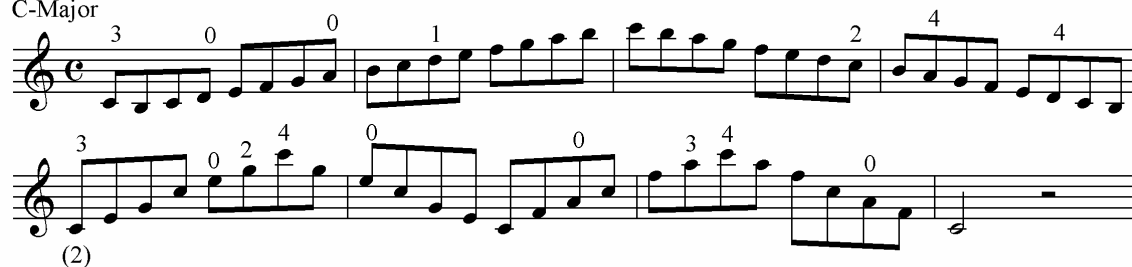
The following selected two-octave major and minor scales and arpeggios are based on the Hřimaly scale system. Those scales are arranged in a circle of fifth progression (for example, C-Major and A-Minor are followed by G-major and E-minor) and include scales up to four sharps and four flats. In addition, a two-octave chromatic scale is included. The teachers may employ the suggested fingerings or use his/her own fingerings. In addition, the teacher can suggest to the student to play the scales with the following bowings:

- 1) Detaché
- 2) Martelé
- 3) Legato
- 4) Staccato
- 5) Spiccato
- 6) Ricochet

The scales and arpeggios can also be performed with two, four, or eight notes in one bow direction. However, the scales must be performed proportionately faster when more notes are played within one bow direction.

## Two-Octave Scales and Arpeggios

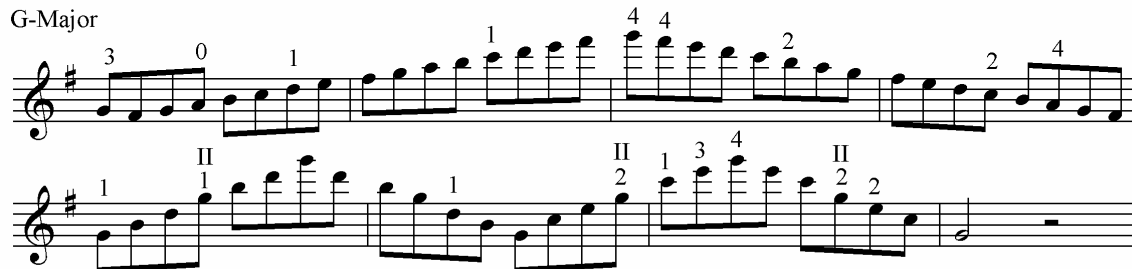
C-Major



A-Minor



G-Major



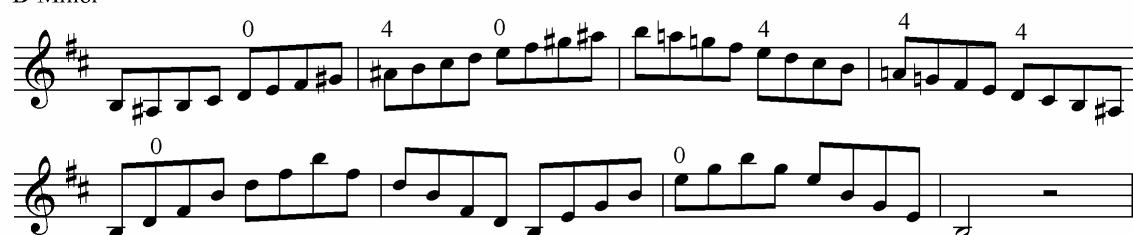
E-Minor



## D-Major



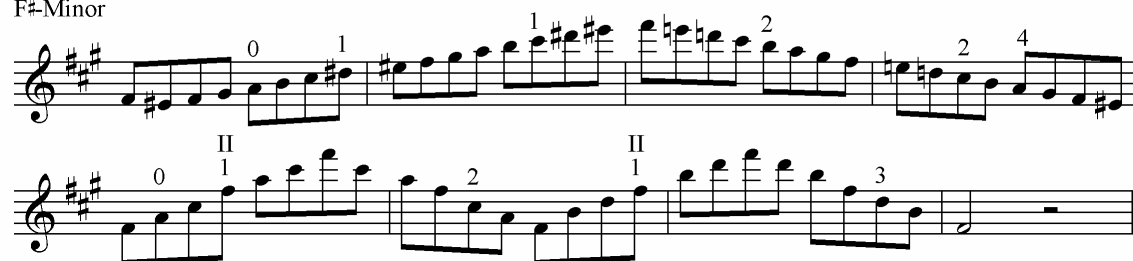
## B-Minor



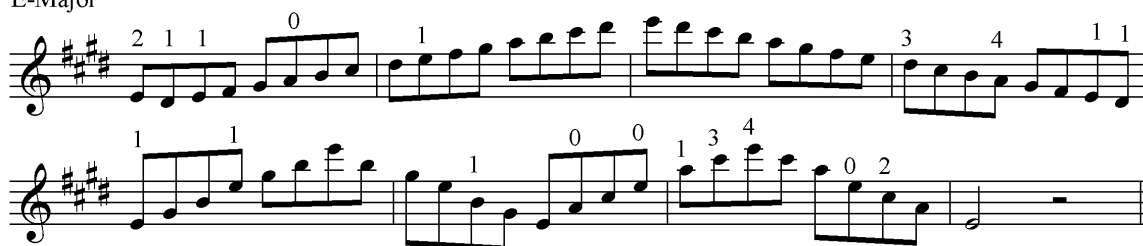
## A-Major



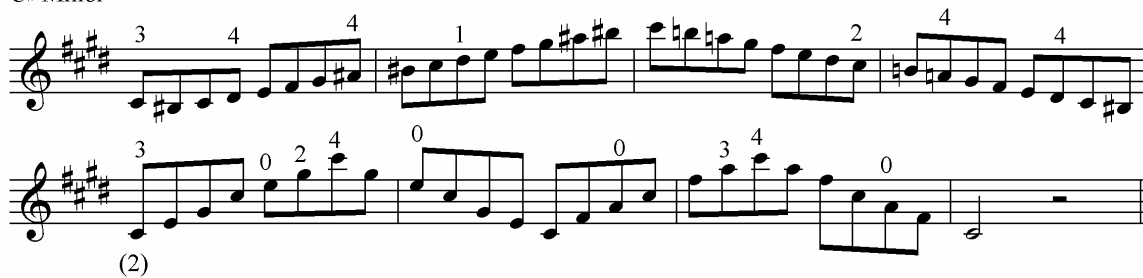
## F#-Minor



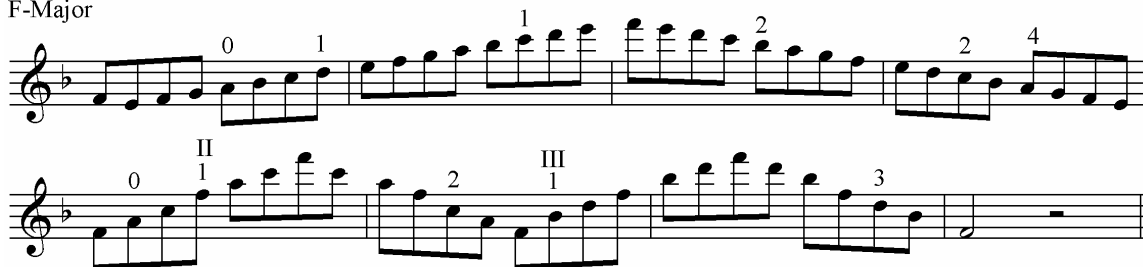
## E-Major



## C#-Minor



## F-Major

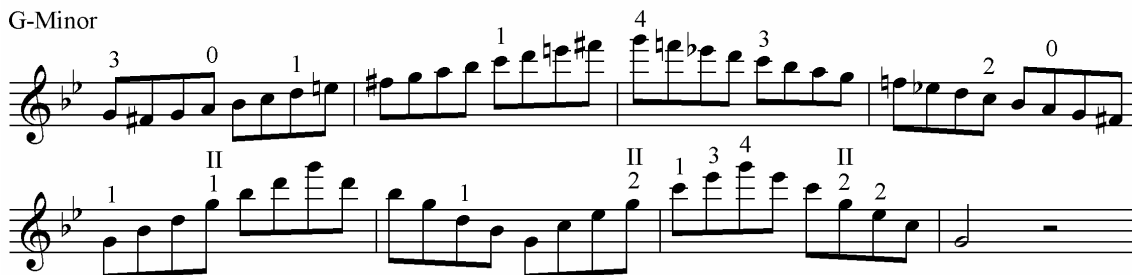


## D-Minor

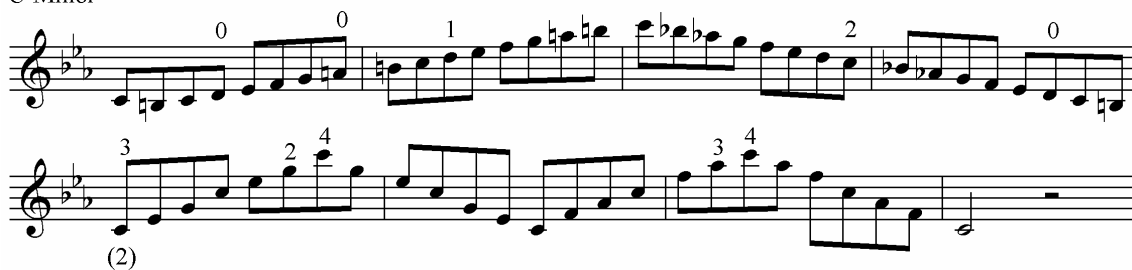


B $\flat$ -Major

## G-Minor

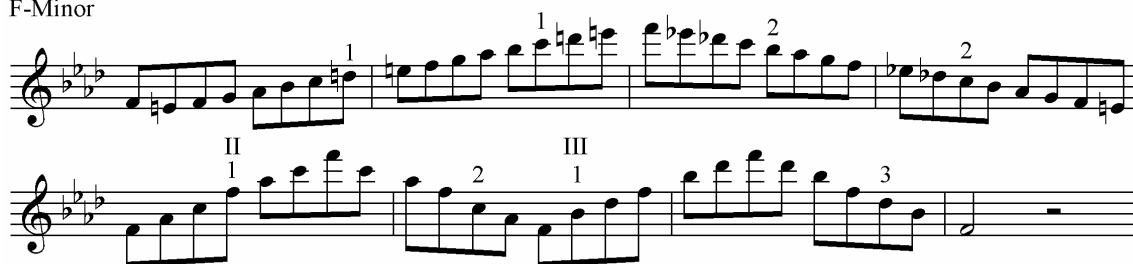
E $\flat$ -Major

## C-Minor



A $\flat$ -Major

## F-Minor



## Chromatic Scale



The following exercise presents selected one-octave scales in double stops (thirds, sixth, and octaves). The fingers which play the double stop must be placed on the two strings simultaneously and the bow must apply an equal pressure on the two strings. The student can use the open strings to check the tuning of many notes in the double stops. The previously discussed shifting principles apply to shifting in double stops. The only difference is that two fingers must execute the shift simultaneously instead of a single finger.



## Scales in Thirds, Sixths, and Octaves

C-Major      Sul A-D      Sul A-E

This block contains the first three scales: C-Major, Sul A-D, and Sul A-E. Each scale is written on two staves. The top staff uses a treble clef and the bottom staff uses a bass clef. Fingerings are indicated by numbers 1-4 above the notes. The C-Major scale is in C major (no sharps or flats). The Sul A-D scale is in A major (three sharps). The Sul A-E scale is in A major (three sharps).

A-Minor

This block contains the A-Minor scale. It is written on two staves. The top staff uses a treble clef and the bottom staff uses a bass clef. Fingerings are indicated by numbers 1-4 above the notes. The A-Minor scale is in A minor (no sharps or flats).

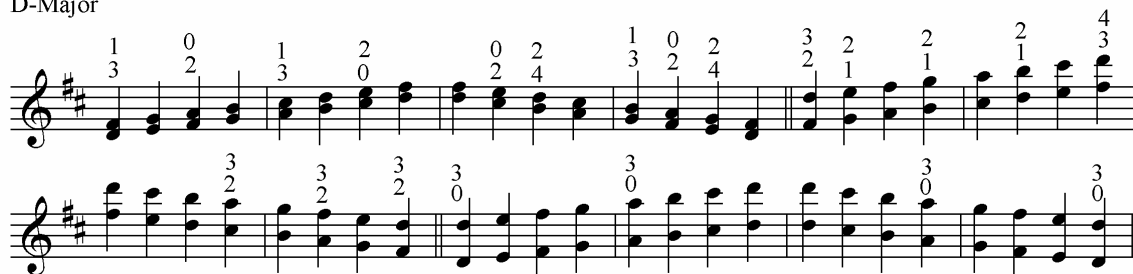
G-Major

This block contains the G-Major scale. It is written on two staves. The top staff uses a treble clef and the bottom staff uses a bass clef. Fingerings are indicated by numbers 1-4 above the notes. The G-Major scale is in G major (one sharp).

E-Minor

This block contains the E-Minor scale. It is written on two staves. The top staff uses a treble clef and the bottom staff uses a bass clef. Fingerings are indicated by numbers 1-4 above the notes. The E-Minor scale is in E minor (no sharps or flats).

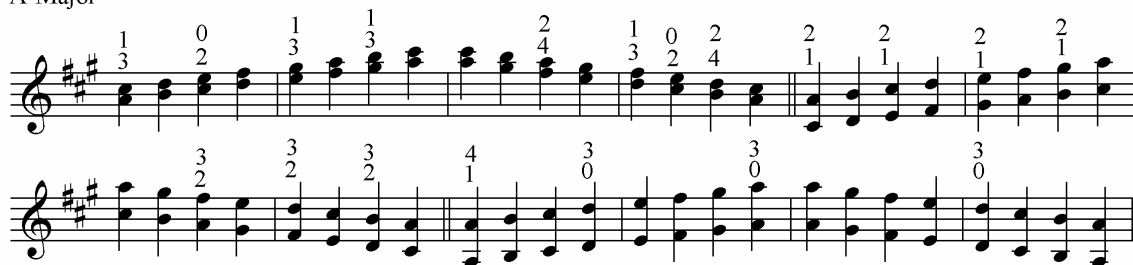
## D-Major



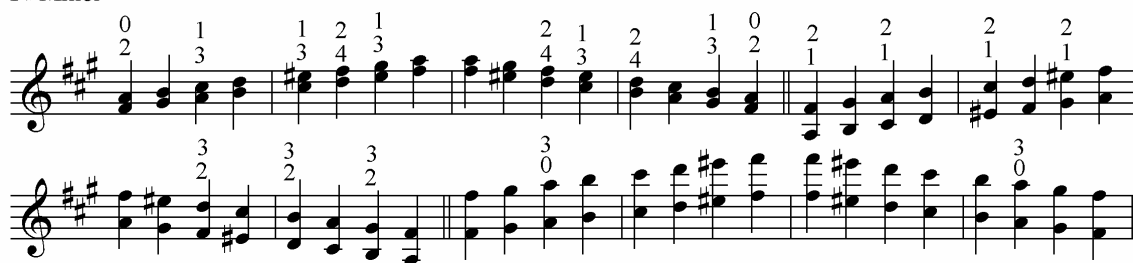
## B-Minor



## A-Major



## F#-Minor





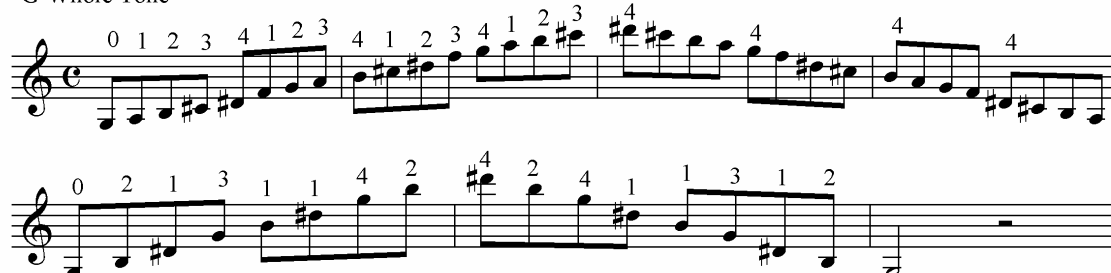
The following exercise features two-octave whole tone and octatonic scales and their respective arpeggios. This exercise gives the violin student an idea of the fingering and sound of those types of scales. The whole tone scale employs the delayed shift type in the following way: the first finger moves a half step forward before the hand and thumb on each string in the ascending direction, whereas the fourth finger moves a half step downward before the hand and thumb in the descending direction (the hand and thumb follow the fingers).

The octatonic scale uses a unique pattern of alternating whole and half steps. Sometimes, this scale requires the use of the so called “half position” in order to articulate the notes with each of the four fingers (as demonstrated in the exercise).

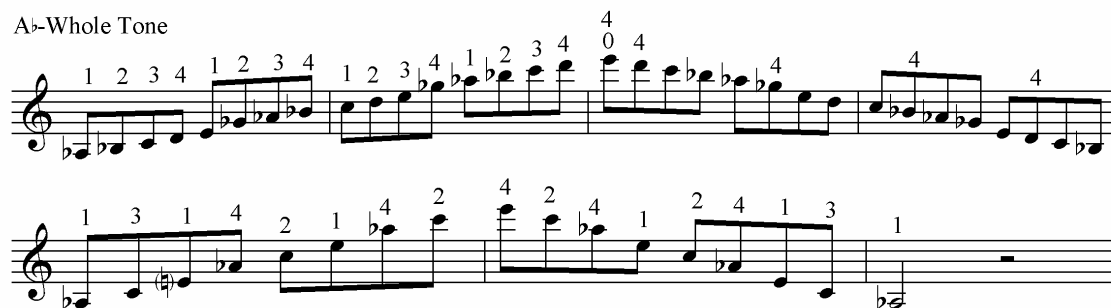
The next exercise “Whole Tone and Octatonic Sixths” demonstrates the preferred fingerings utilized to perform double-stop sixths which are derived from the whole tone and octatonic scales. The whole tone sixths require the use of the following alternating fingerings:  $\frac{1}{2}$  and  $\frac{3}{4}$ . The teacher should pay considerable attention to the intonation of the sixths after the shifts, as it might be difficult for the student to hear the correct intervals and estimate the correct shifting distance (frequent tuning of the double stop notes with open strings is recommended). The fingering for the octatonic sixths can benefit from the use of half step shifts played with the same fingers (as demonstrated in the exercise).

## Whole Tone and Octatonic Scales

### G-Whole Tone



### A $\flat$ -Whole Tone



### G-Octatonic



## Whole Tone and Octatonic Sixths

### A-Whole Tone

Two staves of musical notation for the A-Whole Tone scale. The first staff contains the notes A, B, C, D, E, F, G, A, with fingerings 2, 4, 2, 4, 2, 4, 2, 4 and sul ponticello markings 'Sul D-A' and 'Sul A-E'. The second staff contains the notes A, B, C, D, E, F, G, A, with fingerings 4, 3, 4, 3, 4, 3, 4, 3 and sul ponticello markings 'Sul D-A' and 'Sul G-D'.

### A<sup>b</sup>-Whole Tone

Two staves of musical notation for the A<sup>b</sup>-Whole Tone scale. The first staff contains the notes A<sup>b</sup>, B<sup>b</sup>, C, D, E, F, G, A<sup>b</sup>, with fingerings 2, 4, 2, 4, 2, 4, 2, 4 and sul ponticello markings 'Sul D-A' and 'Sul A-E'. The second staff contains the notes A<sup>b</sup>, B<sup>b</sup>, C, D, E, F, G, A<sup>b</sup>, with fingerings 4, 3, 4, 3, 4, 3, 4, 3 and sul ponticello markings 'Sul D-A' and 'Sul G-D'.

### G-Octatonic

Two staves of musical notation for the G-Octatonic scale. The first staff contains the notes G, A, B, C, D, E, F, G, A, B, C, D, E, F, G, with fingerings 1, 2, 2, 3, 3, 2, 2, 3, 3, 4, 4, 2, 2, 3, 3, 4 and sul ponticello markings 'Sul D-A' and 'Sul A-E'. The second staff contains the notes G, A, B, C, D, E, F, G, A, B, C, D, E, F, G, with fingerings 4, 4, 3, 3, 2, 2, 4, 4, 3, 3, 2, 2, 1, 1, 0 and sul ponticello markings 'Sul D-A' and 'Sul G-D'.

The following exercise presents selected major and minor three-octave scales and arpeggios, which are based on the Hřimaly scale system (up to three sharps and three flats). In addition, a three-octave chromatic scale is included. The ability to perform three-octave scales and arpeggios accurately is an important step in the learning process of the intermediate-level violinist, because the ability to play and shift within the higher octaves is a crucial step towards advanced violin study.

The teacher can use the suggested fingerings or his/her own preferred fingerings (roman numerals are used to designate the violin strings). In addition, the teacher should point out the similar fingering of the major and minor scales above and including Bb-Major/Minor. The student can also perform the scales with the previously suggested bowings and articulations.

## Selected Three-Octave Scales and Arpeggios

### G-Major

Two staves of music for the G-Major scale and arpeggio. The first staff shows the scale ascending and descending with fingerings: 0, 0, 1, 1, 1, 1, 4, 4, 2, 2, 4, 4. The second staff shows the arpeggio ascending and descending with fingerings: 0, 1, II, 1, 1, 0, 2, 1, II, 1, 3, 4, II, 2, 1.

### G-Minor

Two staves of music for the G-Minor scale and arpeggio. The first staff shows the scale ascending and descending with fingerings: 0, 0, 1, 1, 1, 1, 4, 3, 2, 3, 0, 0. The second staff shows the arpeggio ascending and descending with fingerings: 0, 1, II, 1, 1, 0, 2, 1, II, 1, 3, 4, II, 2, 1.

### D-Major

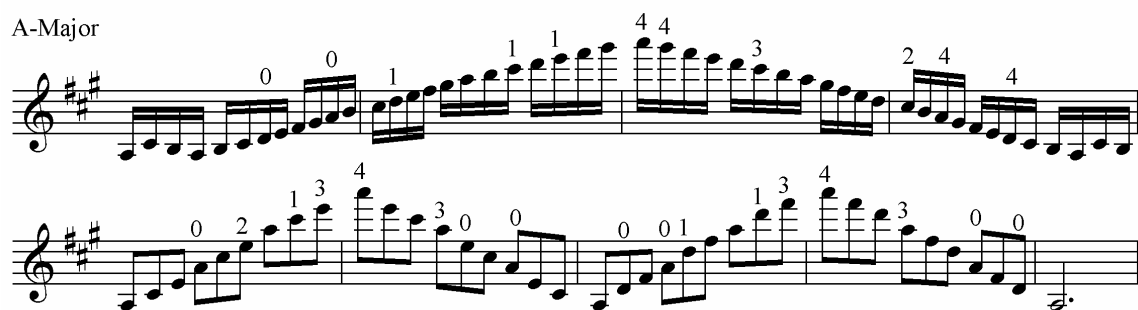
Two staves of music for the D-Major scale and arpeggio. The first staff shows the scale ascending and descending with fingerings: 2, 1, 1, 1, 1, 4, 4, 3, 3, (4). The second staff shows the arpeggio ascending and descending with fingerings: 2, II, 1, 3, 4, 4, II, 1, 3, 4, 4.

### D-Minor

Two staves of music for the D-Minor scale and arpeggio. The first staff shows the scale ascending and descending with fingerings: 2, II, 1, 1, 1, 1, 4, 3, 2, 3, II, 4, 2. The second staff shows the arpeggio ascending and descending with fingerings: 2, II, 1, 3, 4, 4, II, 1, 3, 4, 4.



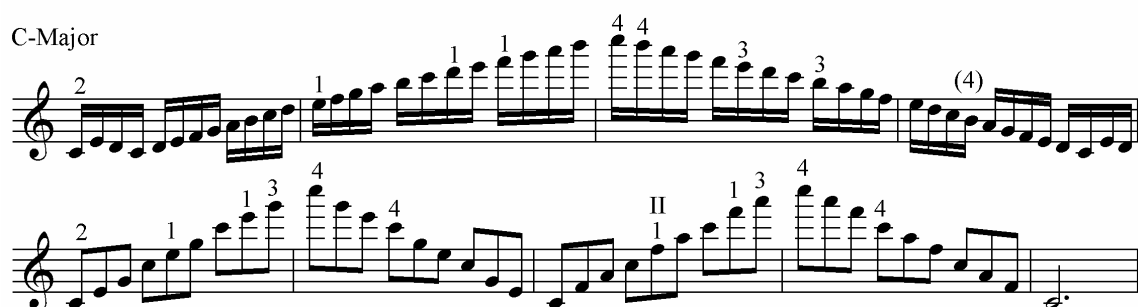
## A-Major



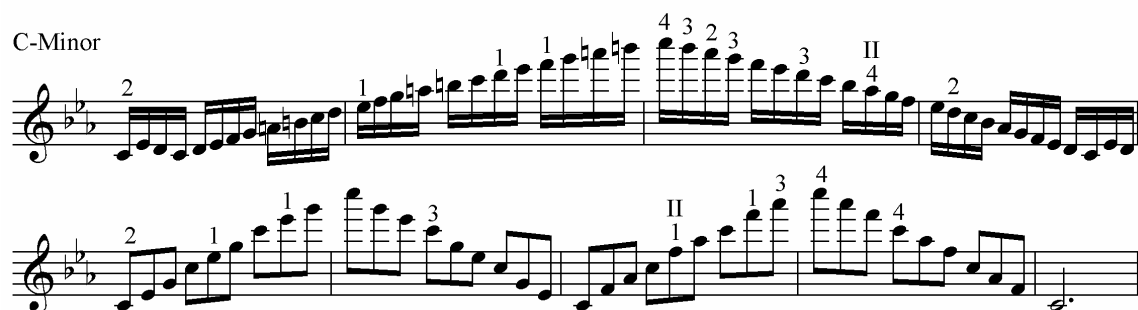
## A-Minor



## C-Major



## C-Minor



F-Major

Diagram of the F-Major guitar scale. The scale is written on two staves. The first staff shows the scale ascending from the 2nd fret of the 4th string to the 4th fret of the 1st string. The second staff shows the scale descending from the 4th fret of the 1st string to the 2nd fret of the 4th string. Fingering numbers (1-4) are indicated above the notes. Roman numerals IV and II are placed above the 2nd and 1st strings respectively. A circled 4 is placed above the 4th fret of the 1st string.

F#-Minor

Diagram of the F#-Minor guitar scale. The scale is written on two staves. The first staff shows the scale ascending from the 2nd fret of the 4th string to the 4th fret of the 1st string. The second staff shows the scale descending from the 4th fret of the 1st string to the 2nd fret of the 4th string. Fingering numbers (1-4) are indicated above the notes. Roman numerals IV and II are placed above the 2nd and 1st strings respectively.

Bb-Major

Diagram of the Bb-Major guitar scale. The scale is written on two staves. The first staff shows the scale ascending from the 4th fret of the 4th string to the 0th fret of the 1st string. The second staff shows the scale descending from the 0th fret of the 1st string to the 4th fret of the 4th string. Fingering numbers (0, 1, 3, 4) are indicated above the notes. Roman numerals IV and II are placed above the 2nd and 1st strings respectively.

B-Minor

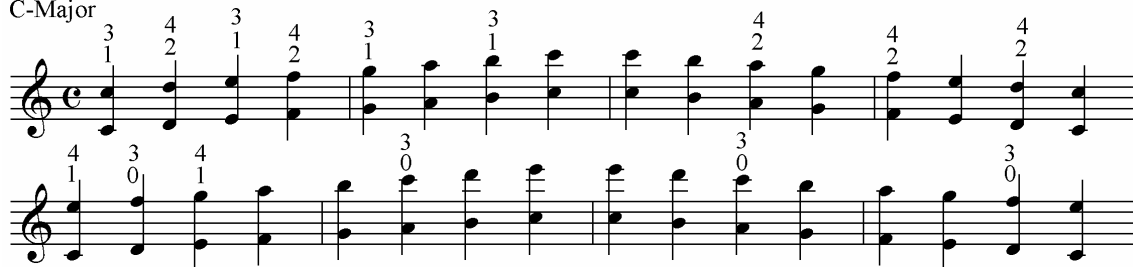
Diagram of the B-Minor guitar scale. The scale is written on two staves. The first staff shows the scale ascending from the 4th fret of the 4th string to the 4th fret of the 1st string. The second staff shows the scale descending from the 4th fret of the 1st string to the 4th fret of the 4th string. Fingering numbers (0, 1, 3, 4) are indicated above the notes. Roman numerals IV and II are placed above the 2nd and 1st strings respectively.



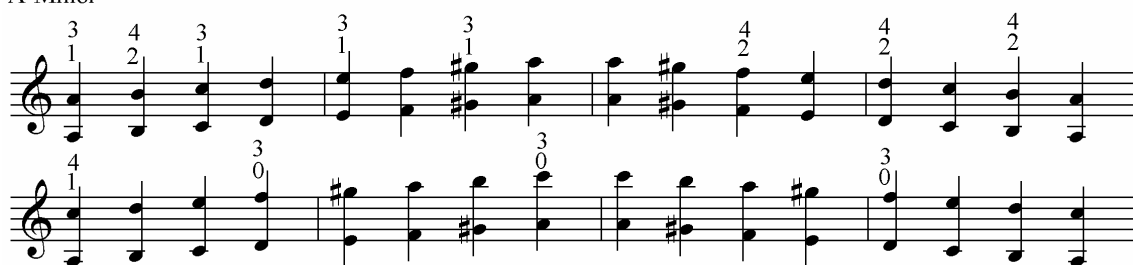
The following exercise “Scales in Fingered Octaves and Tenths” can be considered as a sequel to the previous exercise “Scales in Thirds, Sixth, and Octaves.” The current exercise can further refine the violinist’s technique and bring it closer to the advanced level. The performance of fingered octaves and tenths requires the stretching of the fingers beyond their “traditional” position confinement. The student should observe to keep the hand and fingers relaxed during the stretch as much as possible. When performing tenths, the student should estimate the shifting distance from one double stop to the next by knowing how far each finger must travel (a half step or a whole step).

## Scales in Fingered Octaves and Tenths

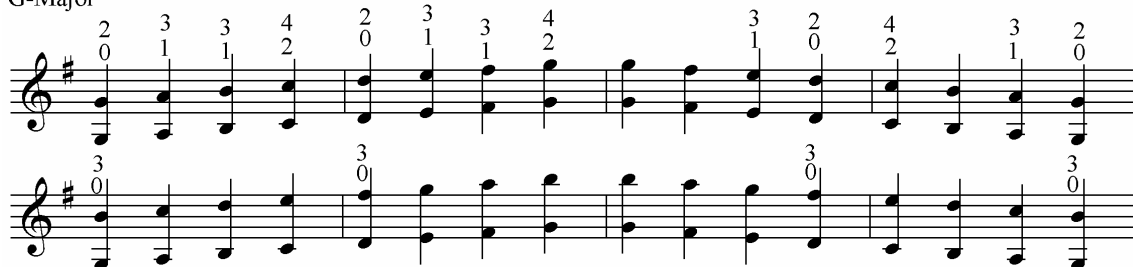
### C-Major



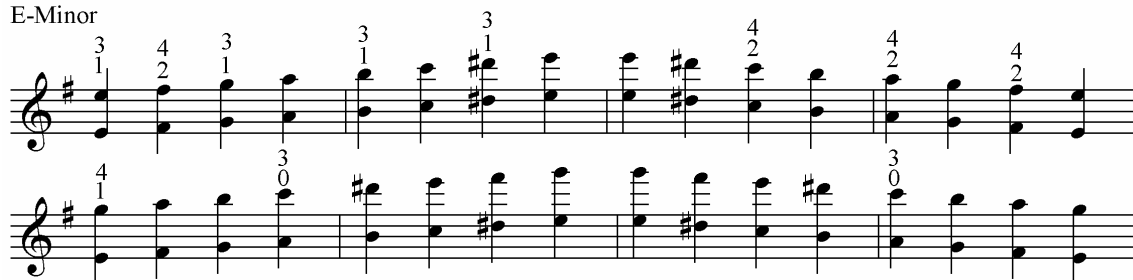
### A-Minor



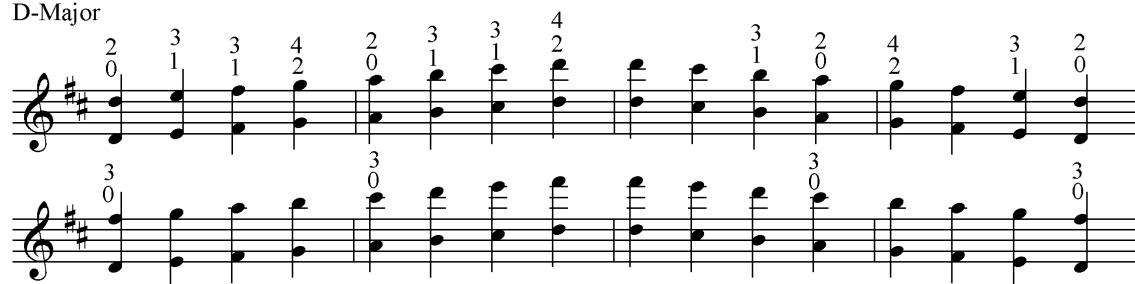
### G-Major



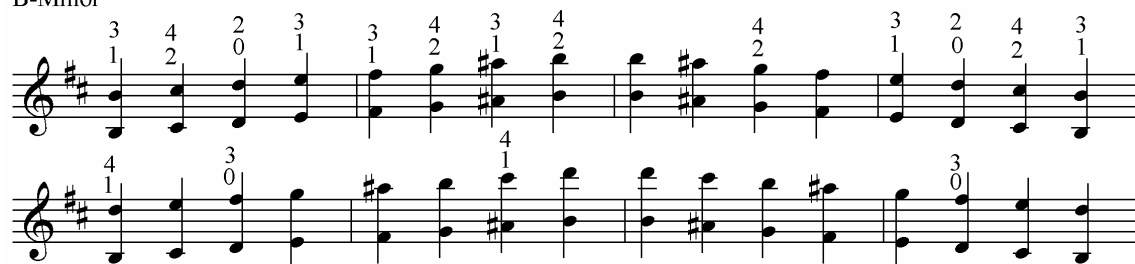
### E-Minor



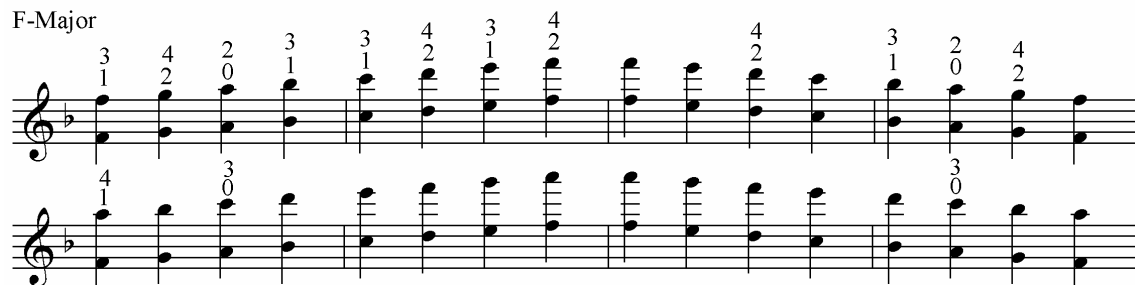
## D-Major



## B-Minor



## F-Major



## D-Minor



The final exercise in this section presents three-octave whole tone and octatonic scales. The two forms of the whole tone scale are presented (scales beginning on G and on Ab respectively). The three forms of the octatonic scale are also presented (scales beginning on G, on Ab, and on A respectively). Those scales can provide a further refinement in the violinist's shifting technique and ear training skills.

In addition, the intermediate-level violinist can rely on the following scale books for further practice:

*Two Octave Scales and Bowings for the Violin* by Susan Brown

*Scale-Studies* by Hřimaly

*Scales for the Advanced Violinist* by Barbara Barber

*Scale System* by Flesch (selected portions)

*Contemporary Violin Technique* by Galamian and Neumann (selected portions)

## Three-Octave Whole Tone and Octatonic Scales

### G-Whole Tone

G-Whole Tone

0 1 2 3 4 1 1 1 2 3 3 4 4 4 0

### A $\flat$ -Whole Tone

A $\flat$ -Whole Tone

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

## G-Octatonic

G-Octatonic

0 1 2 3 4 1 2 3 4 0 1 2 3 4 0 1 1 b 1 1 # # 2 3

(3) (3)

### A $\flat$ -Octatonic

A $\flat$ -Octatonic

The image shows the A-flat Octatonic scale in both treble and bass clefs. The treble clef staff contains the first six notes: A-flat, B-flat, C, D, E-flat, and F. The bass clef staff contains the remaining two notes: F and G, followed by a double bar line. Fingering numbers (1-4) are placed above each note to indicate the recommended fingerings for each hand.

### A-Octatonic

A-Octatonic

The diagram shows the A-Octatonic scale on a guitar fretboard. The scale is represented by two staves of music. The first staff shows the scale from the 0th fret to the 4th fret, with notes: A2 (open), B2 (1st fret), C3 (2nd fret), D3 (3rd fret), E3 (4th fret), F#3 (5th fret), G#3 (6th fret), and A3 (7th fret). The second staff shows the scale from the 4th fret to the 7th fret, with notes: B3 (4th fret), C4 (5th fret), D4 (6th fret), E4 (7th fret), F#4 (8th fret), G#4 (9th fret), A4 (10th fret), and B4 (11th fret). The notes are grouped into pairs of octaves, with the first octave in the first staff and the second octave in the second staff. The notes are marked with fret numbers (0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11) and accidentals (sharps, flats, naturals). The scale is labeled 'A-Octatonic'.