

Circle of Fifths / Circle of Fourths

By Stefon Pizzuto

Now that the holidays are over and things have somewhat returned to normal, let's turn our attention back to our study of the bass guitar. Our focus this time will be on a theoretical concept that most musicians will encounter at some point in their travels regardless of what instrument they may play – **the Circle of Fifths**.

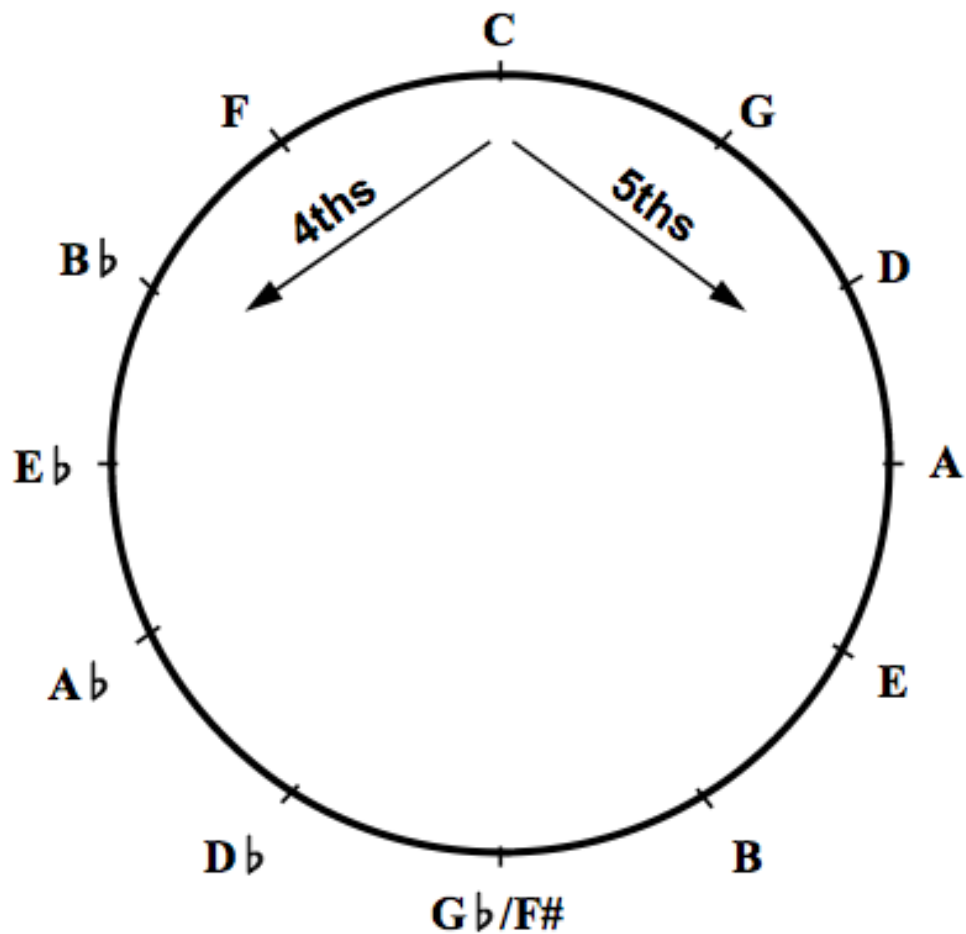
The *circle of fifths*, also called the *cycle of fifths*, best resembles a clock, except that instead of having twelve numbers on its face, it contains the twelve notes of the chromatic scale. Think of the note C as being in the twelve o'clock position. By traveling clockwise around the circle, the notes are arranged in the interval of a perfect 5th. This, of course, is how the diagram got its name.

After the starting note C, the note G is next in the sequence. This is because G is the perfect 5th of C. Since D is the perfect 5th of G, it is next on the circle, occupying the two o'clock position. The pattern continues for the remainder of the cycle until returning to the original pitch of C. Completing the circle of fifths—A is the perfect 5th of D, E is the perfect 5th of A, B is the perfect 5th of E, F# (G) is the perfect 5th of B, D is the perfect 5th of G, A is the perfect 5th of D, E is the perfect 5th of A, B is the perfect 5th of E, F is the perfect 5th of B, and C is the perfect 5th of F.

Moving the opposite direction, or counter-clockwise, around the circle creates the Cycle of Fourths. Once again, begin at the note C. This time, however, travel counter-clockwise a perfect 4th to the note F in the eleven o'clock position.

Continue up another perfect 4th to the note B occupying the ten o'clock position. Follow this pattern through the remainder of the cycle until returning to the original note C, as you did in the cycle of fifths. Completing the cycle of fourths—

E is the perfect 4th of B, A is the perfect 4th of E, D is the perfect 4th of A, G is the perfect 4th of D, B is the perfect 4th of F# (G), E is the perfect 4th of B, A is the perfect 4th of E, D is the perfect 4th of A, G is the perfect 4th of D, and C is the perfect 4th of G.



My first suggestion is to memorize the circle in BOTH directions. This is because you will need to utilize both the circle of fifths and the circle of fourths when learning key signatures and studying chord movement. Furthermore, it is usually helpful to create a saying or acronym to help you remember the notes in their proper order. I recommend having one saying for the circle of fifths and one for the circle of fourths. Anything that helps you recall the notes in order will work fine.

One application for the circle of fifths is to aid you in learning the key signatures for all twelve of the major keys. To figure out which keys contain which sharps or flats, begin with the key of C. As you know, the key of C major has no sharps or flats. As you go clockwise around the circle, add one sharp every time you move to the next note. This means that the key of G major has one sharp, the key of D major has two sharps, the key of A major has three sharps, and so on.

The same holds true for the flat keys. Begin at the note C and add one flat

every time you move to the next note. This means that the key of F major has one flat, the key of B major has two flats, the key of E major has three flats, and so on. This is one reason that the keys with accidentals are most often referred to as flats instead of sharps.

Take E major, for example, which has three flats. E can also be referred to as D#. By calling the key E major you are only dealing with three flats - B, E, and A. If you call the key D# major, you must contend with nine sharps – F#, C#, G#, D#, A#, E#, B#, F##, and C##. Since it is easier to think of three flats than nine sharps, most people prefer to call the key E rather than D#.

The circle of fourths has a practical application as well. In fact, it is often considered to be the more useful of the two. First, we need to establish the fact that harmony wants to move in fourths, meaning chords naturally want to progress in perfect fourths. I would like to stress that memorizing the cycle of fourths will give you an advantage in understanding and applying chord movement.

Let's see how this applies to our study. If you were to play a C chord on a guitar or piano, the chord it naturally wants to progress to is F. From the F chord, the progression naturally wants to move to the B chord, and so on. Just remember to move counter-clockwise around the circle in order to produce perfect fourths instead of perfect fifths.

This concept is seen most often in Jazz music. Jazz has a progression called the II-V-I change. The Roman numerals represent the number of each chord in the key. The II chord in C major, for example, is D because D is the second note of the C major scale. The V chord is G because G is the fifth note of the C major scale. C, of course, is the I chord because C is the first note, or root note, of the key.

Look at how these notes are grouped in the circle below. D, G, and C are arranged consecutively in a counter-clockwise direction beginning at two o'clock. To find a II-V change in any key, begin on the root note (I chord) and travel back two notes to the right on the circle. The notes will always produce a II-V-I progression when played counter-clockwise.

You can expand upon this concept by going clock-wise three notes to right of the I chord. The added note that comes just before the II chord will always be the VI chord, creating another popular Jazz progression Vi-II-V-I. Referring back to the key of C major, the VI chord would be A, because A is the major sixth of C. Our progression, therefore, would be A – D – G – C.

Going one step further, moving an additional note to the right of the VI produces the III chord. Staying with the key of C major, the progression III-VI-II-V-I would be E – A – D – G – C. This is another common chord progression in Jazz music, enforcing the concept that chords like to move in fourths.

Committing the cycle of fourths to memory will make playing through Jazz tunes much easier, as most Jazz pieces are based around II-V changes. To reinforce the order of notes in the circle of fourths, I recommend practicing your scales and arpeggios in fourths. In other words, play the major scale in the key of C, followed by the key of F, the key of B and so on.

As you can see the circle of fifths can be a very valuable tool for learning key signatures as well as understanding chord movement. Its theoretical concepts apply to all instruments and forms of music, so it is definitely worthwhile to learn the circle in both directions. The more comfortable you become with this musical idea, the easier time you will have playing through chord changes in their respective keys.

Keep working this concept until you are able to apply it in a performance setting. Remember - the more you are able to incorporate learned material, the better bass player you will become. Until next time, keep practicing and best of luck in your musical endeavors!