Circle of Fifths

A Mathematical Investigation of Music

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Mathematical Evolutions

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Abstract

In this paper, it is discussed that there are many links that connect the world of mathematics to the realm of music, including the musical Circle of Fifths. The Circle of Fifths is a musical tool in which indicates the correct key signature for major and minor scales. It was created by the Greek Mathematician Pythagoras to show the relatively and arrangement between the keys in music. This "circle" is in the shape of a clock face with twelve clockfaces: C, G, D, A, E, B, F#/Gb, C#/Db, Ab, Eb, Bb, F, and so on back to C. He found a mathematical connection to the Circle of Fifths. For example, the pitch (musical term is *note*) G is a fifth of the frequency that the note C gives off, so all in all, a formula for the Circle of Fifths is proven and established in this mathematical and musical "piece".