

# Music and Math in Harmony

## by Paul VanRaden

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### Summary

A variety of scales, tuning systems, and types of harmony are derived using simple math. The resulting tones are mapped onto a new piano keyboard. Traditional music theory uses a standard keyboard with an uneven key pattern that has been copied without thought for more than 700 years. On a new, electronic keyboard with evenly spaced keys, beginners could choose fewer tones and professionals could choose more tones to produce different and better music.

[Keyboards and Tuning](#) (2023 ppt presentation)

[Musical Scales](#) (2023 ppt presentation with audio)

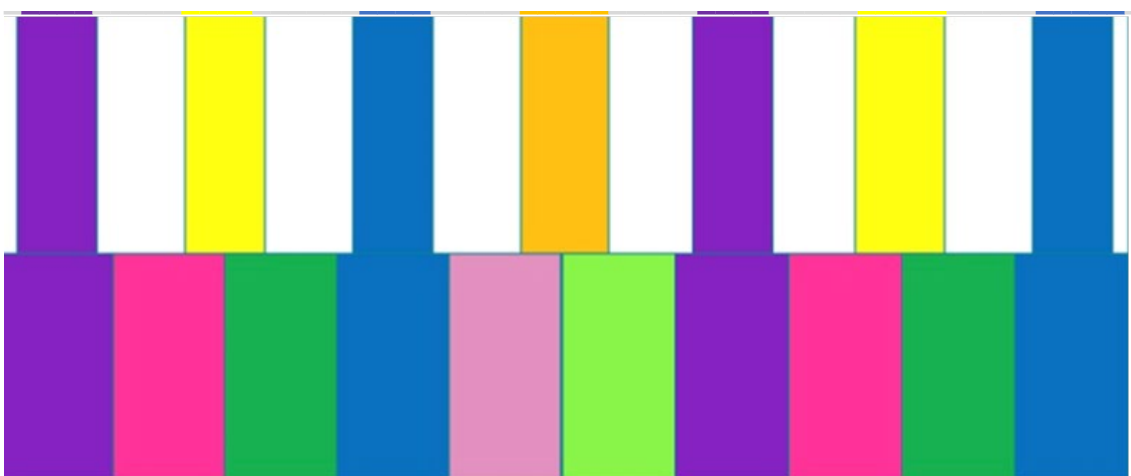
[Music and Math in Harmony](#) (2002 full article)

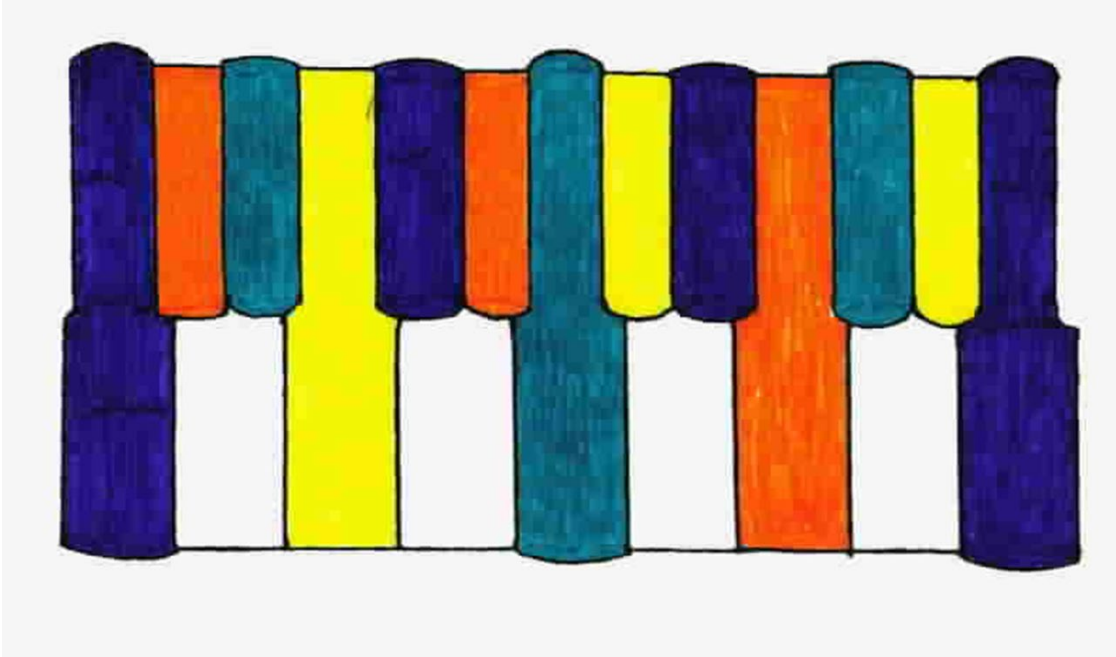
[A Scalable Piano Keyboard](#) (2002 patent application)

[VanRaden's Theory of Music](#) (2002 audio tape, 45-minute)



**Angel VanRaden wants a simpler piano keyboard easier to play.**





Daddy hopes she will like new, scalable piano keyboards.

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