Why I think the music staff is not really mathematically correct

How I'm making my life easier (or miserable) learning Jazz Harmony 🤔😅

Hi there!

I'm Stefania or **astrastefania** on 

👩‍💻 Data Scientist + Mozilla and Effective Altruism advocate

📝 MathsJam host in Turin, Italy

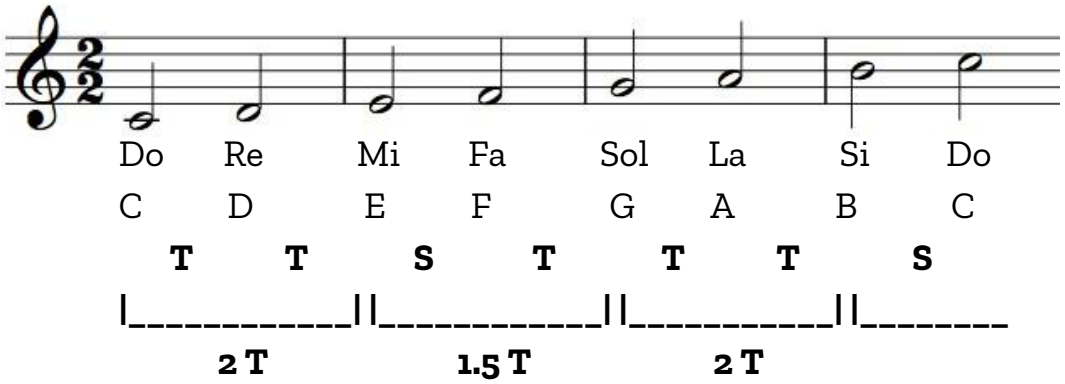
🎶 Over the last months, among (too many) other things,
I started studying **jazz drumming and harmony**.

The five (or ten) lines of the staff

The distance between two consecutive lines of the staff is always the same, but the distance (the interval measured in semitones) between two notes on consecutive lines is not always the same...

...and that annoyed me! 🤦‍♀️

The five (or ten) lines of the staff

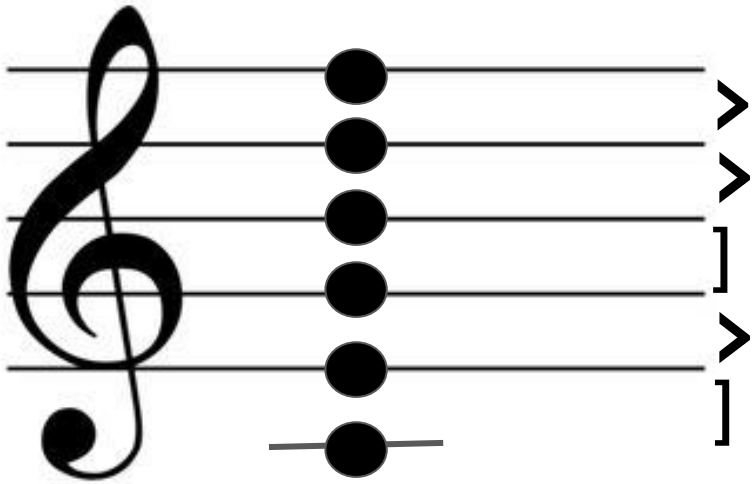


The distance between E on the 1° line from the bottom and the G on the 2° line is 1.5 tones (semitone = 0.5 tone), while the distance between G and B on the 3° line is 2 tones.

Superpenta

So I created an alternative version! ✍️

> = 1.5 tones (1 tone + 1 semitone)] = 2 tones



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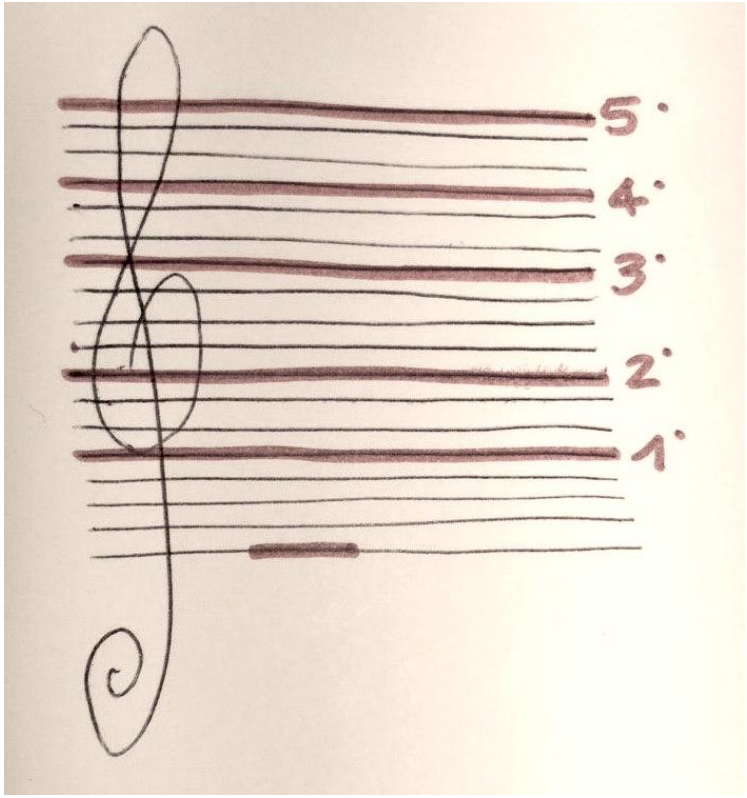

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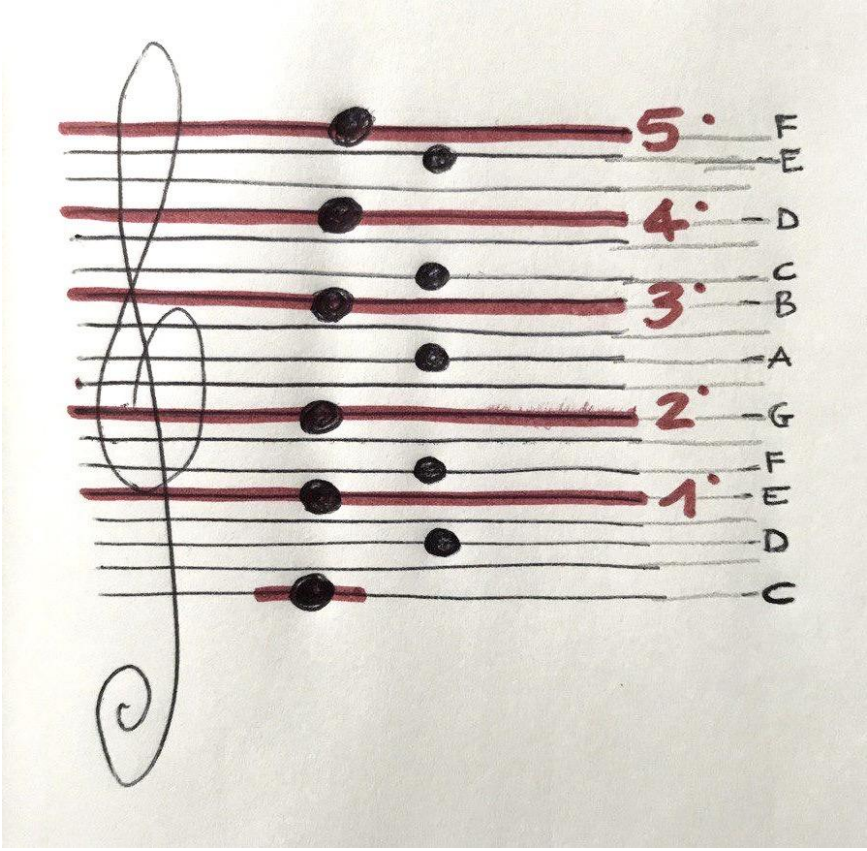

Why was that useful for me?

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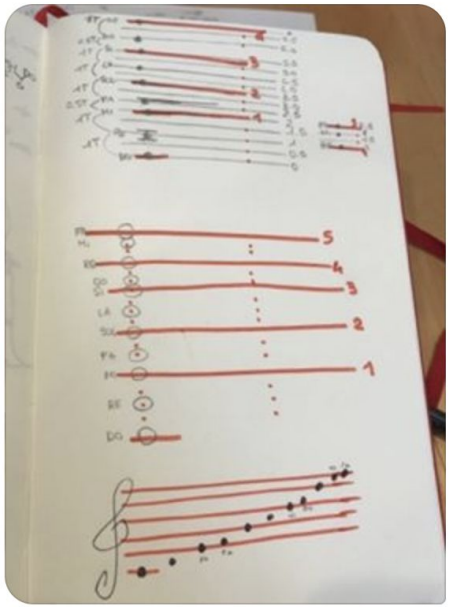

poi ti spiego se non è chiaro 😀

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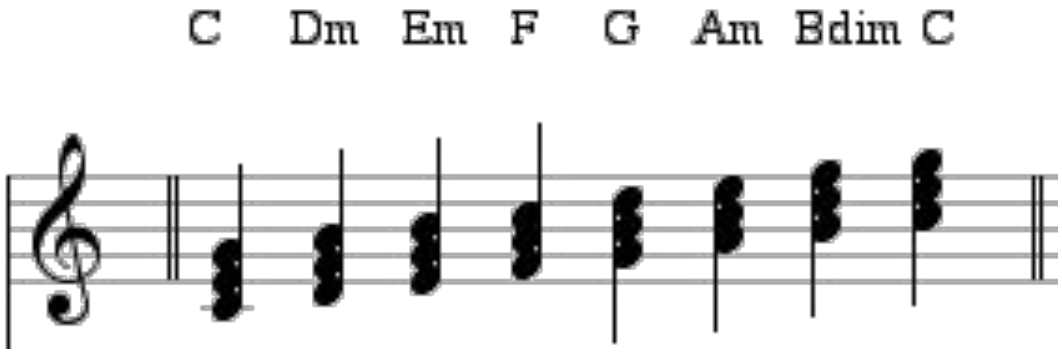
mi sembra più complicato in realtà!

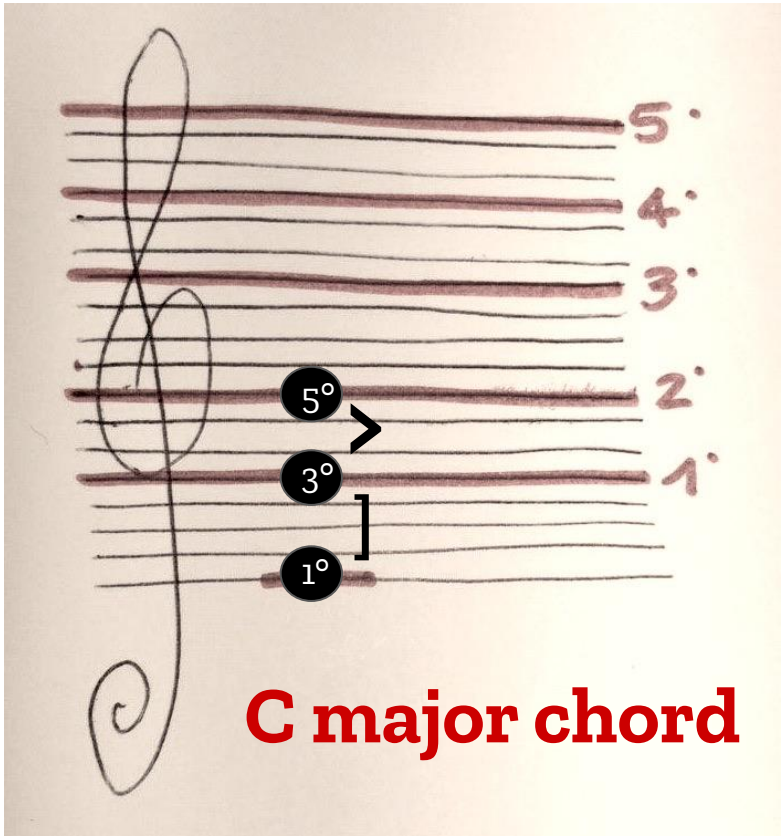
Music theory on the old-fashion staff

Example: labelling triads (a chord with three notes) and more



Music theory on the superpenta

Example: labelling triads (a chord with three notes) and more



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] = 2 tones

Music theory on the superpenta

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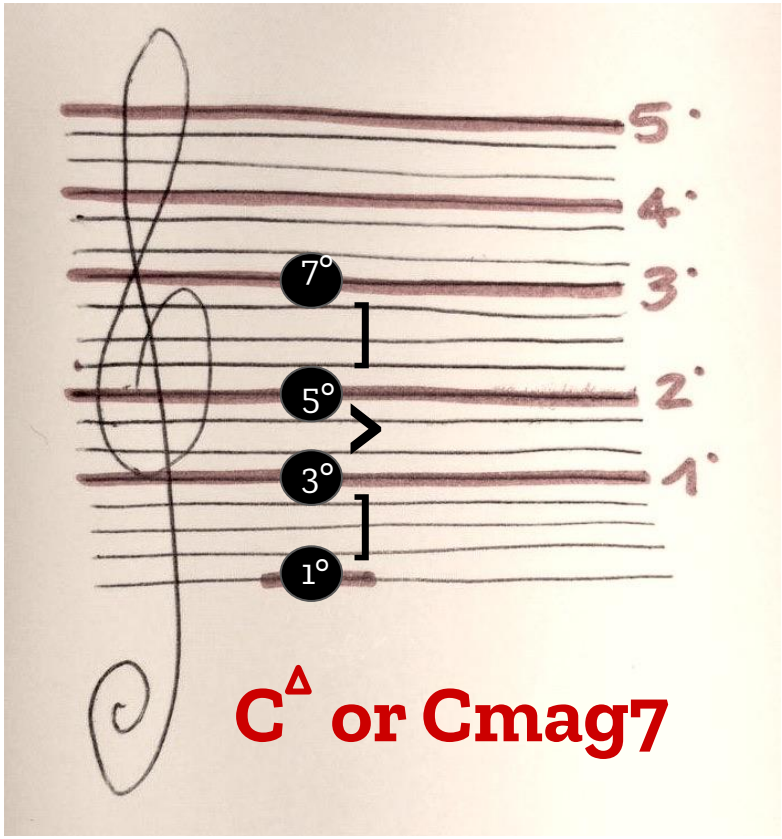

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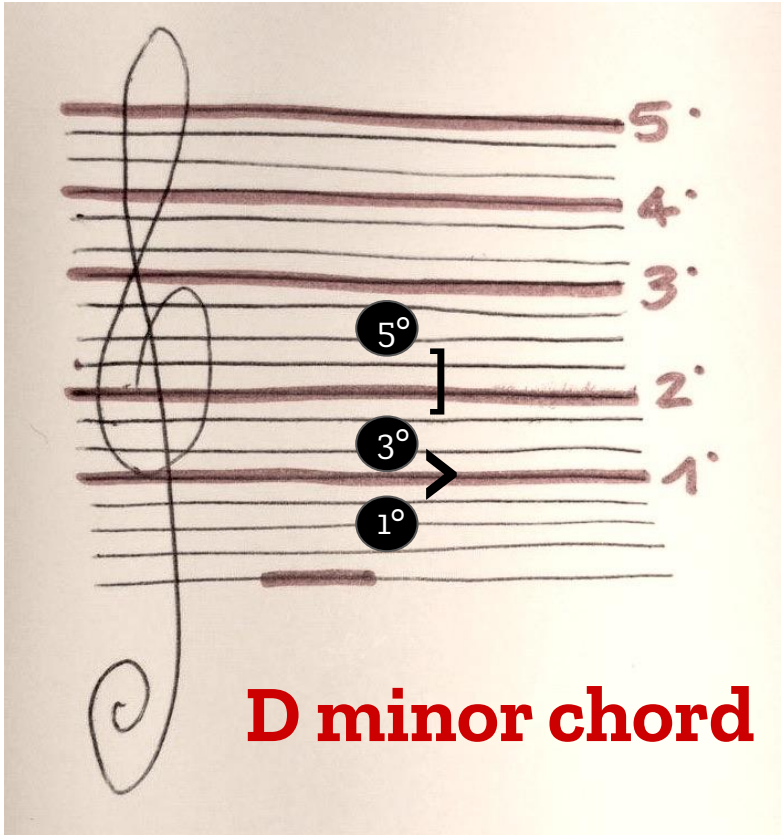

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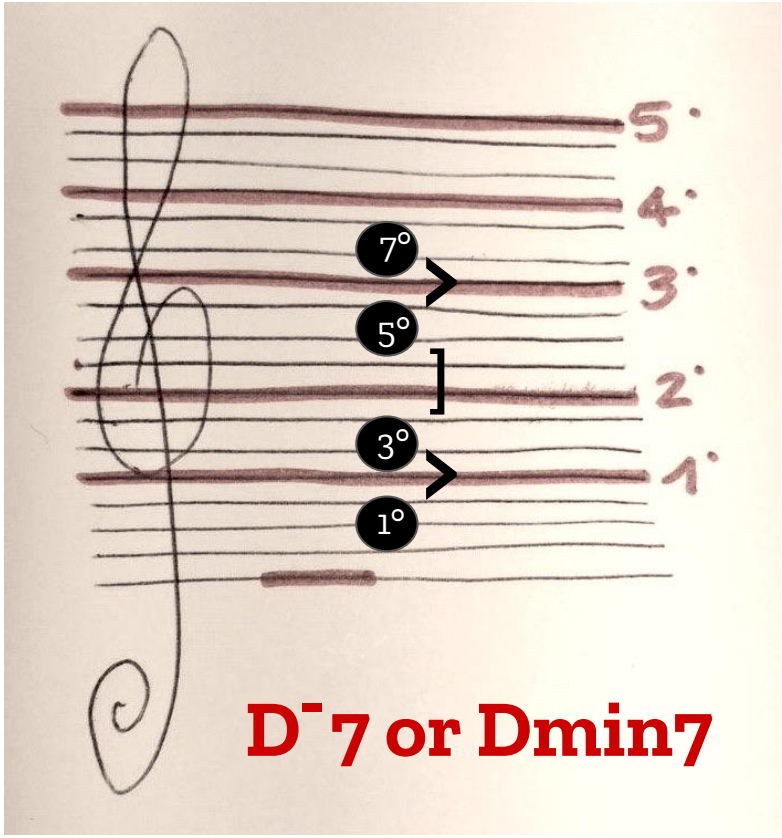

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Music theory and patterns

]	>	>	]
>	]	>	>
]	>	]	>
… Δ	… -7	… 7	… ø
… mag7	… min7		

> = 1.5 tones

] = 2 tones

For example C major scale chords

C^{Δ} $D^{-}7$ $E^{-}7$ F^{Δ} G7 $A^{-}7$ Bø

Coming up: is there a need of both sharps and flats?

"So the third grade of this is a X flat, let's write a X-1 sharp instead"

That drives me crazy...

Why can't we just using numbers? 😉

We could use 0.5 as a semitone unit and build the scales and their harmonisation from a decided starting point note.

Gratitude and contacts

Big thanks to my patient jazz teachers:

🎹 the amazing pianist Fabio Giachino

 the amazing drummer Alessandro Minetto

Stefania Delprete

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