

Neo Riemannian theory in Flamenco

Tonnetz and Chicken-Wire Torus

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The music by three gitanas

Songs analysed

La luz

Pena Penita Pena

Volver

The Tonnetz

Conceptual overview

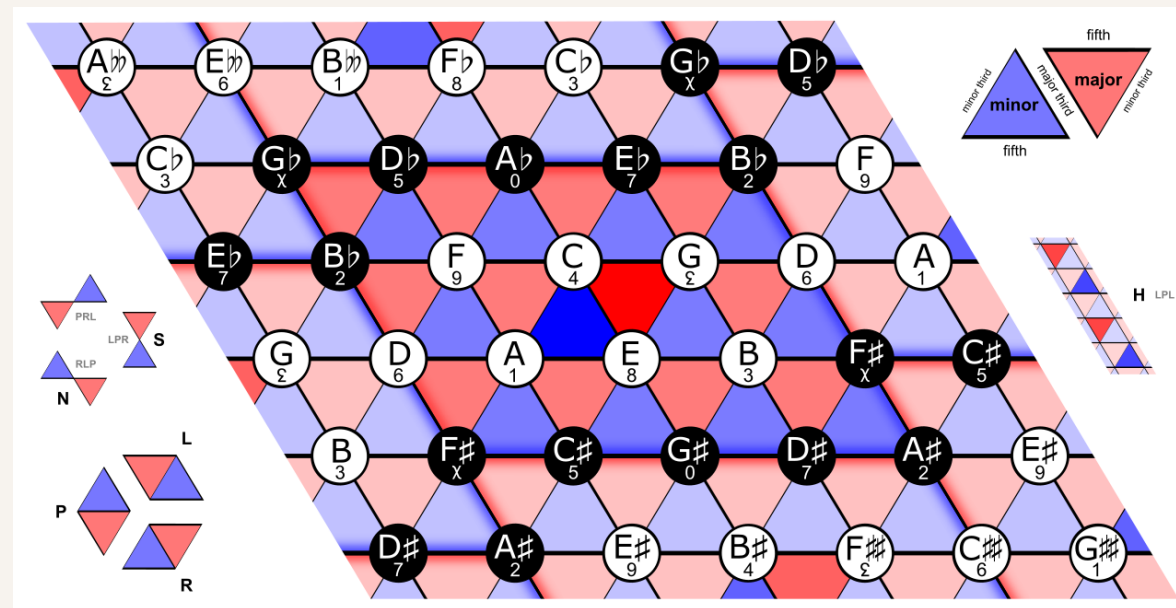
What is the Tonnetz?

A geometric representation of the harmonic relationships between major and minor triads in a two-dimensional space.

LPR Transformations

- L — Leading-tone exchange
Exchanges the root or fifth with its adjacent semitone.
- P — Parallel
Transforms a major chord into its parallel minor (and vice versa).
- R — Relative
Transforms a major chord into its relative minor (and vice versa).

Adjacent chords in the Tonnetz share exactly two common tones.



La luz – María José Llergo

Transformational analysis: Tonnetz · Chicken-Wire Torus · LPR Transformations

COLORS + STUDIOS

Chicken-Wire representation

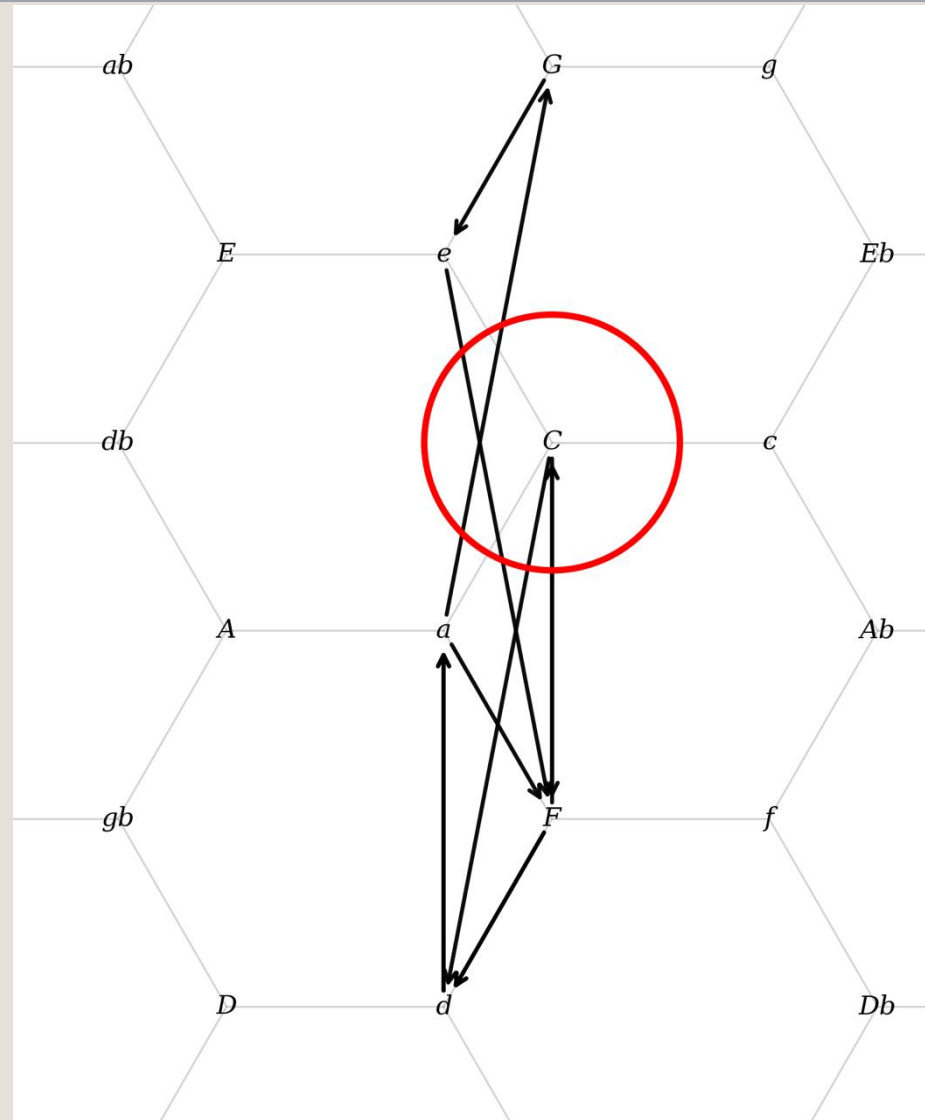
María José Llergo – *La luz*

C - Dm – Am

F - Dm - Am - G - Em – F

C - F - Dm - Am

- The red circle marks the starting chord.



Chicken-Wire representation

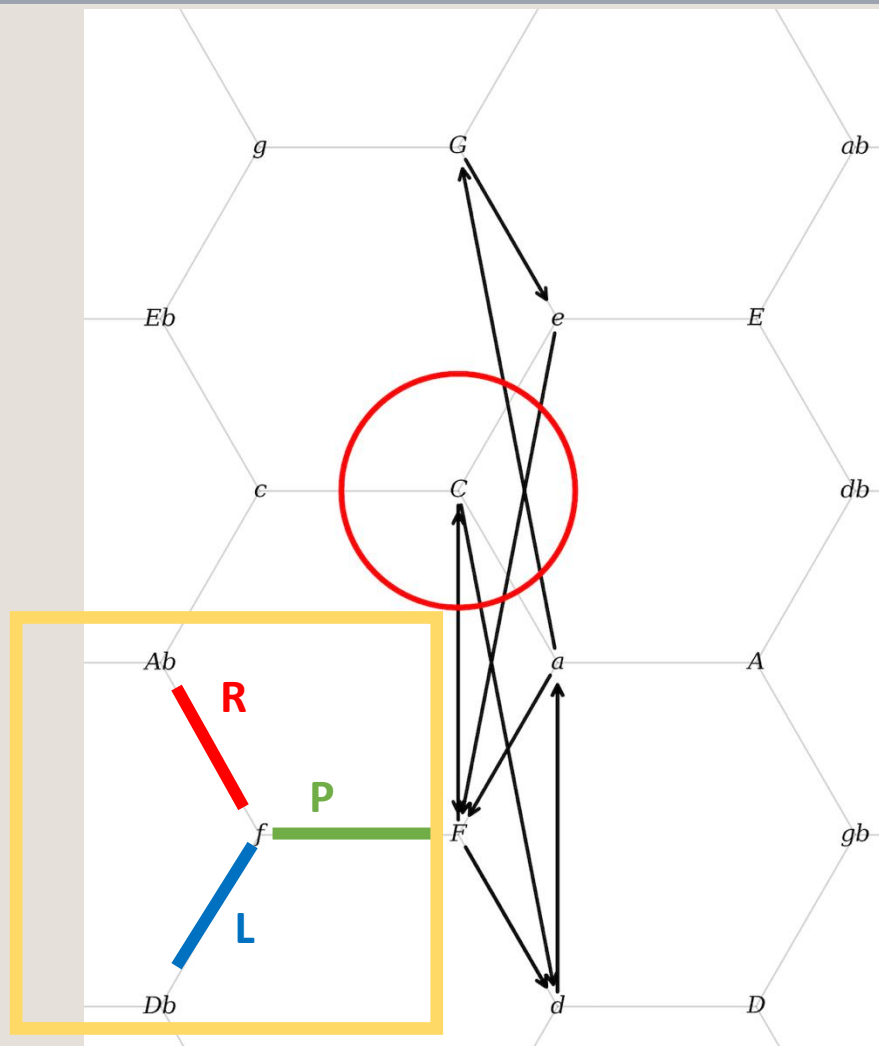
María José Llergo – *La luz*

C - Dm - Am

F - Dm - Am - G - Em - F

C - F - Dm - Am

- The red circle marks the starting chord.



Source chord	Target chord	Transformation
C	Dm	RLR
Dm	Am	RL
Am	F	L
F	Dm	R
Dm	Am	
Am	G	
G	Em	
Em	F	
F	C	
C	F	
F	Dm	
Dm	Am	

C - Dm – Am

F - Dm - Am - G - Em – F

C - F - Dm - Am

HOMEWORK!

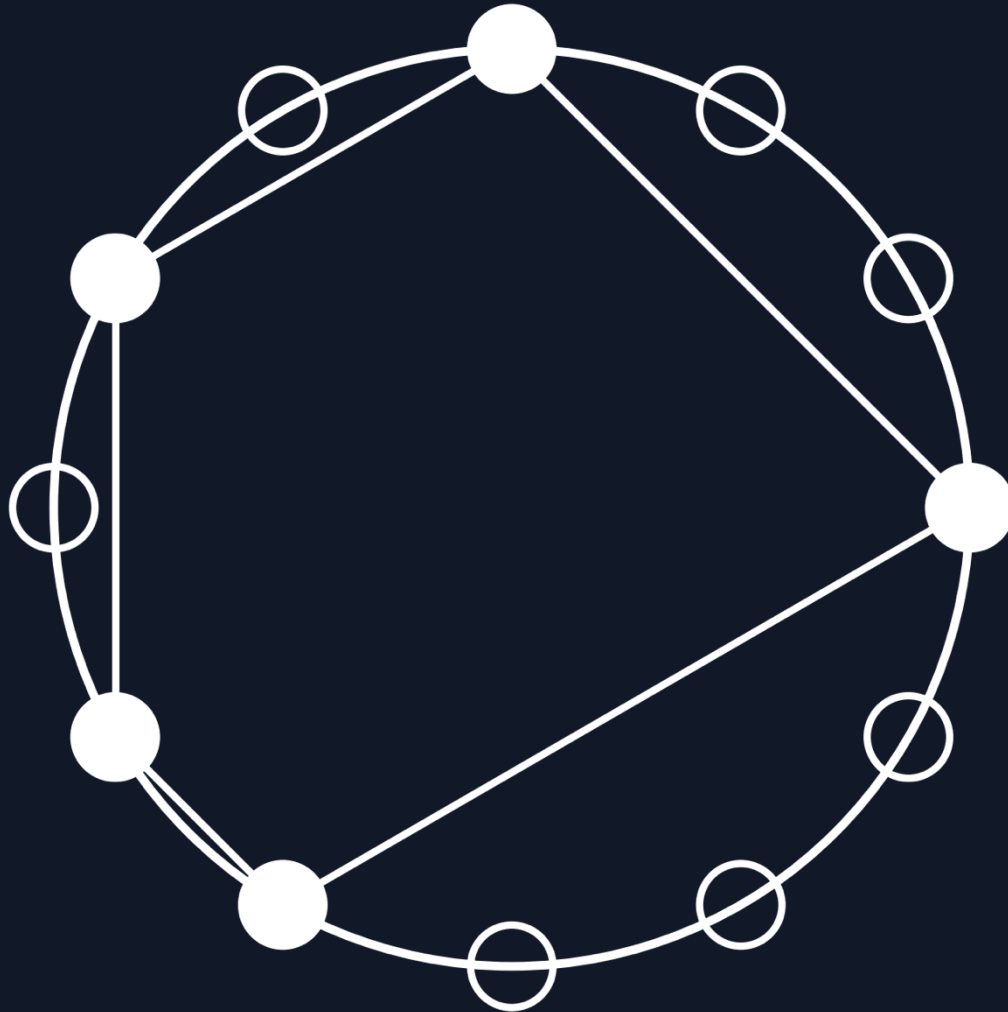
Can you continue looking for the transformations?

Email me the answer!

rosamg06@ucm.es

Rhythm - Alegrías

La luz



(0, 3, 7, 8, 10)



Pena Penita Pena – **Lola Flores**

Transformational analysis: Tonnetz · Chicken-Wire Torus · LPR Transformations

Tonnetz

Lola Flores– *Pena, penita pena*

<https://youtu.be/9Hn96uHkthU?si=QIfPQE7jS8Xf4LqB>

ONE KEY = MANY REPRESENTATIONS

9	1, 3, 8	1, 4, 7	1, 5, 6	2, 2, 8	Dual
6	2, 5, 5	3, 4, 5	3, 3, 6	4, 4, 4	

(experimental)

Load Midi File Start Recording

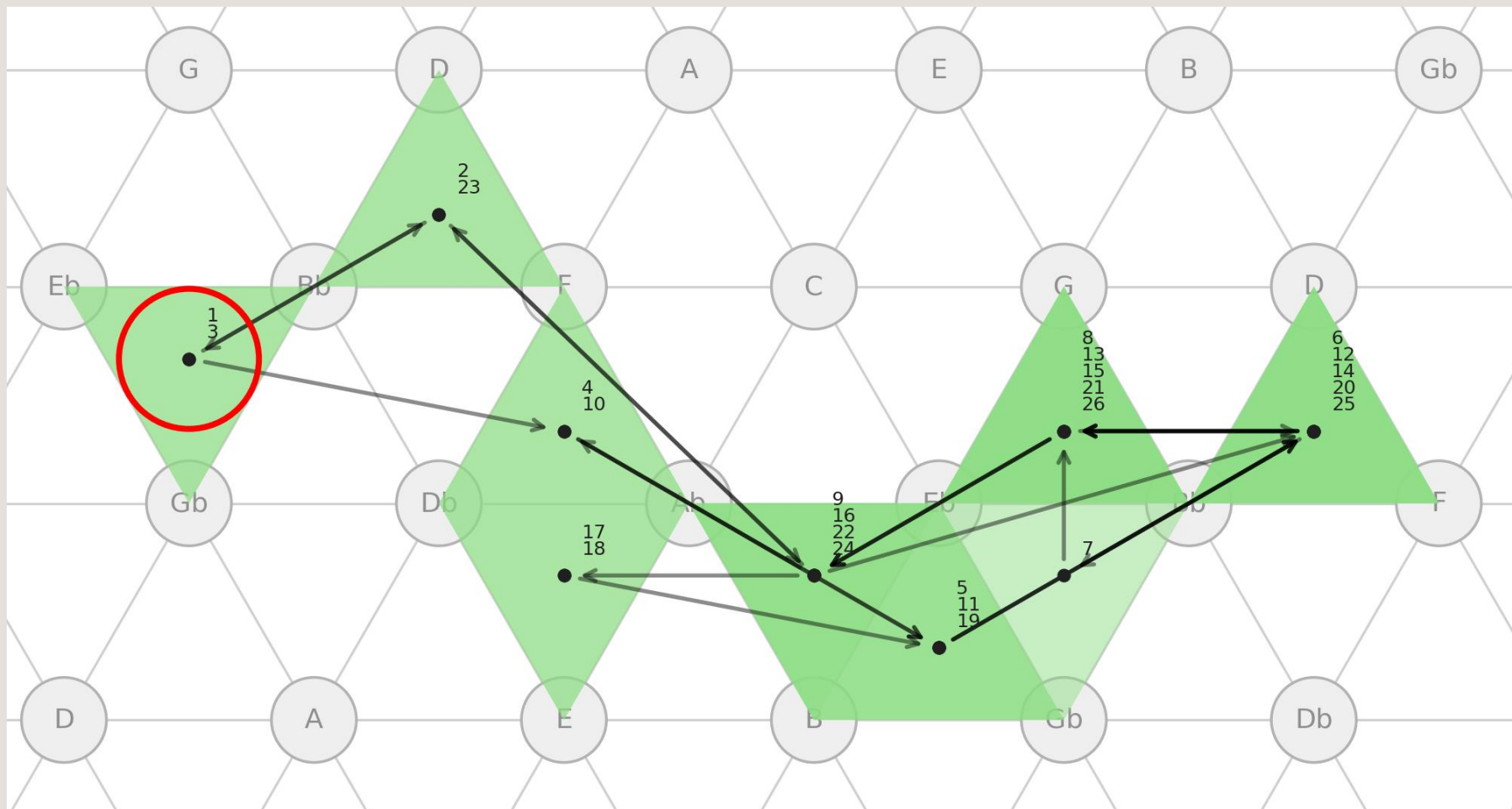


Verse

Ebm - Bb - Ebm
Ebm - Db - B - Bb - Ebm
Eb - Abm
Db - B - Bb

Chorus

Eb - Bb
Bb - Eb
Eb - Abm - Dbm - B - Bb
Eb - Abm - Bb
Abm - Bb - Eb



Volver – Estrella Morente

Transformational analysis: Tonnetz · Chicken-Wire Torus · LPR Transformations

Estrella Morente – *Volver*

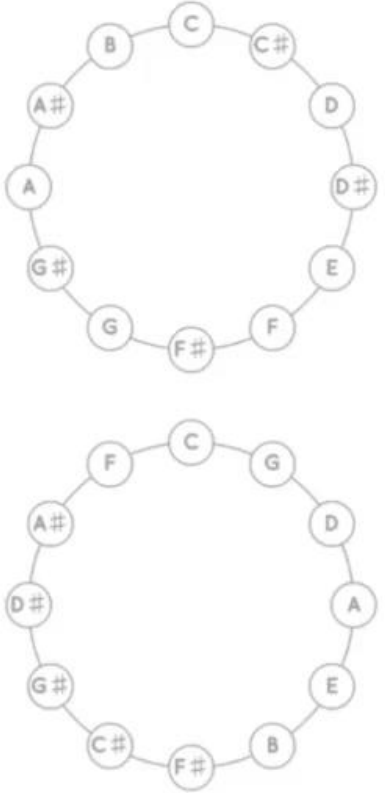
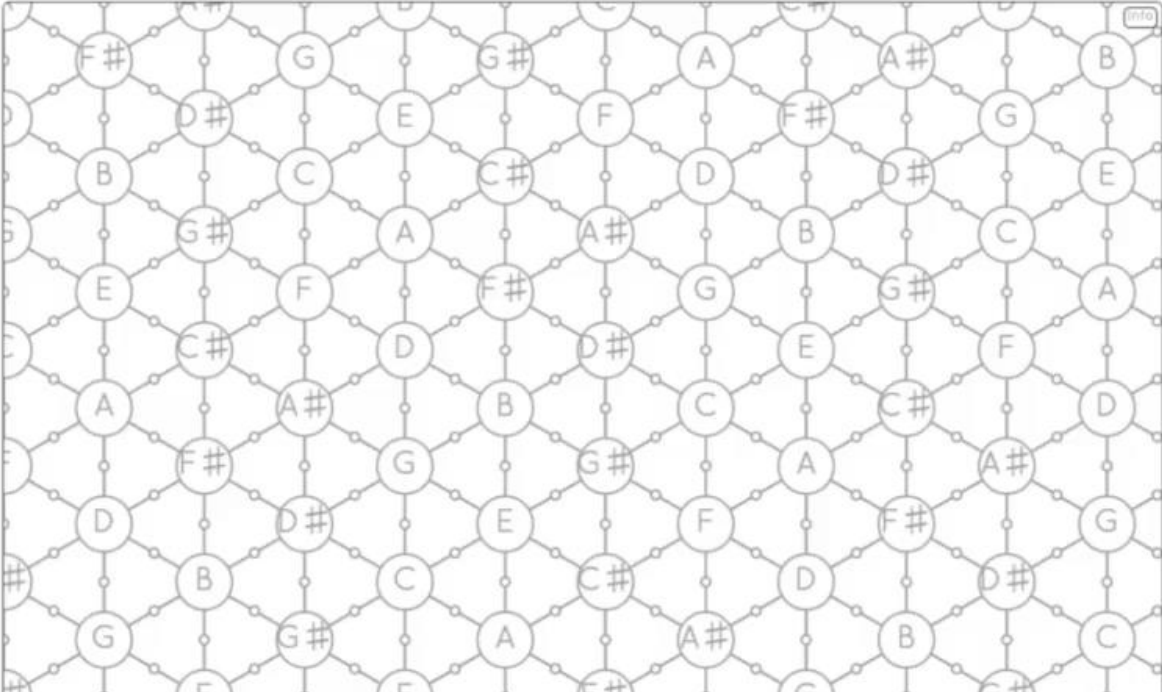
<https://youtu.be/QMrtEUXwvo8?si=mSZUI059PgbNf4Im>



Tonnetz

Estrella Morente – *Volver*


ONE KEY - MANY REPRESENTATIONS



1, 1, 10	1, 2, 9	1, 3, 8	1, 4, 7	1, 5, 6	2, 2, 8	Dual
2, 3, 7	2, 4, 6	2, 5, 5	3, 4, 5	3, 3, 6	4, 4, 4	

Trace trajectory (experimental)

Load Midi File Start Recording



Chicken-Wire representation

Estrella Morente – *Volver*

Verse

Am - Bo E7

Am - G

C - Bo - E7

Am - E7

Bridge

Dm G - C - Bo - E7

Dm G - C - Bo - E7 - A

Chorus

A

Bm - E7 - A

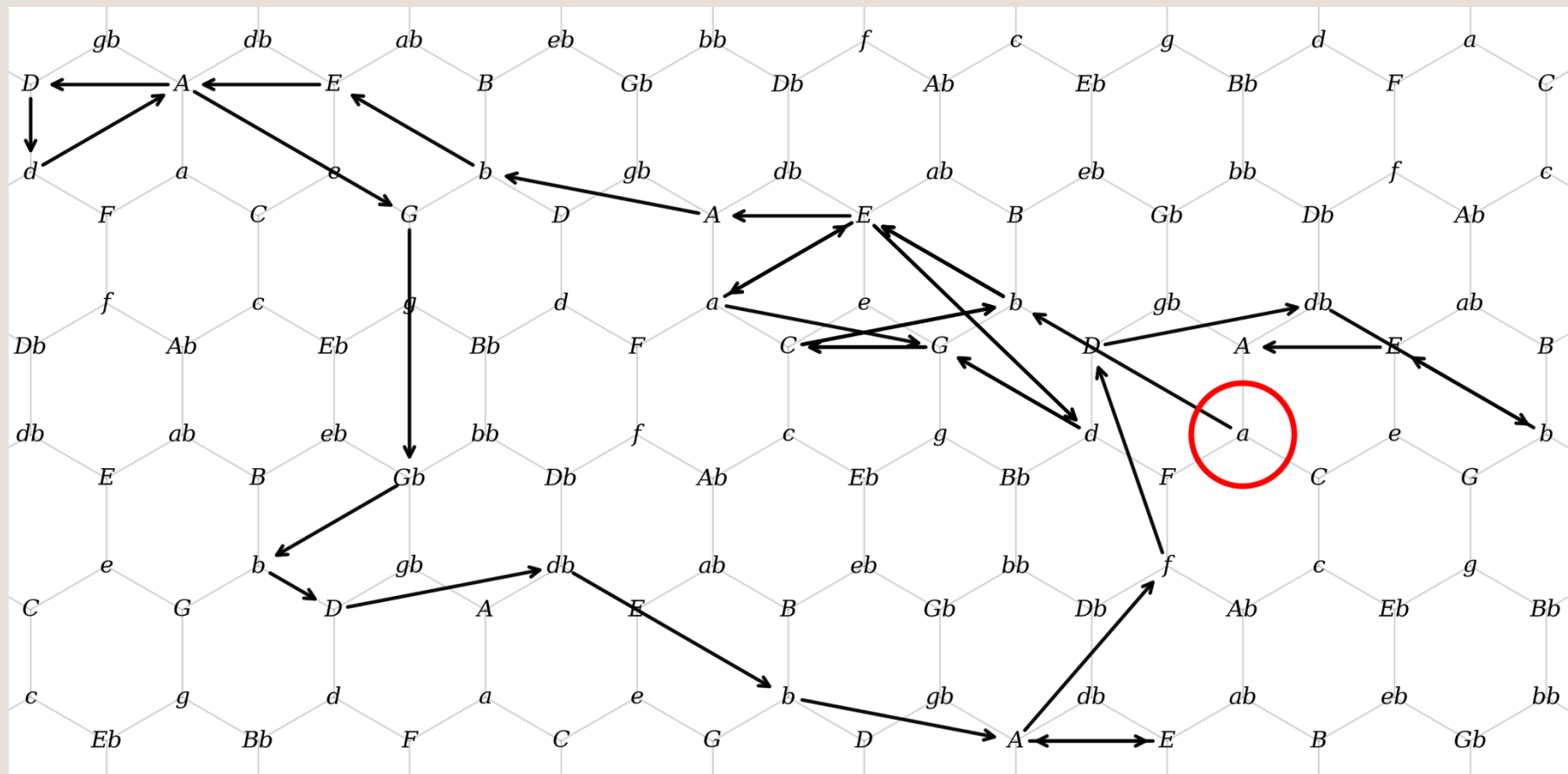
D - Dm

A - G F# - Bm D - C#m Bm

A - E7 - A

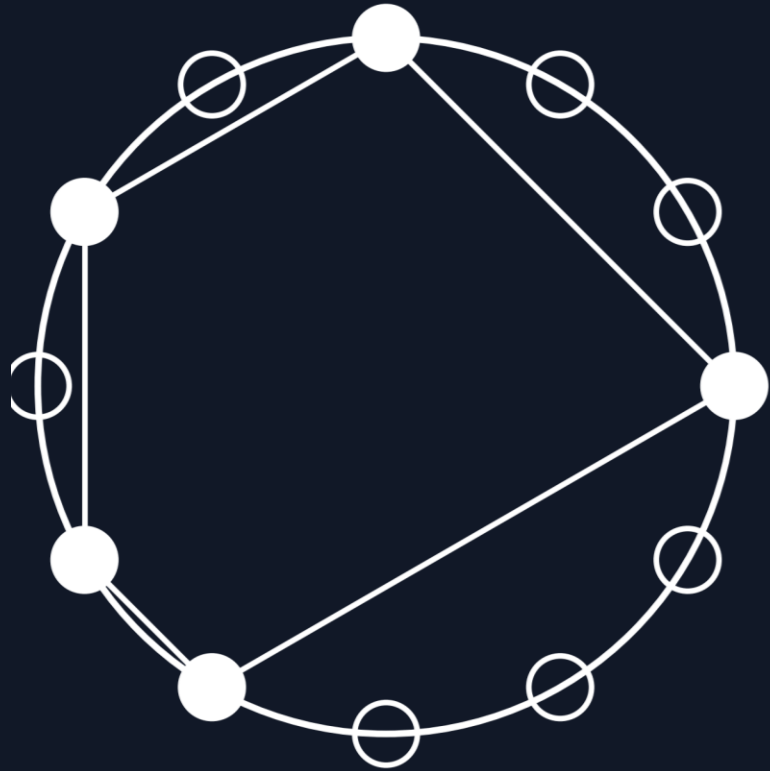
Fm - D - C#m - Bm

E7 - A

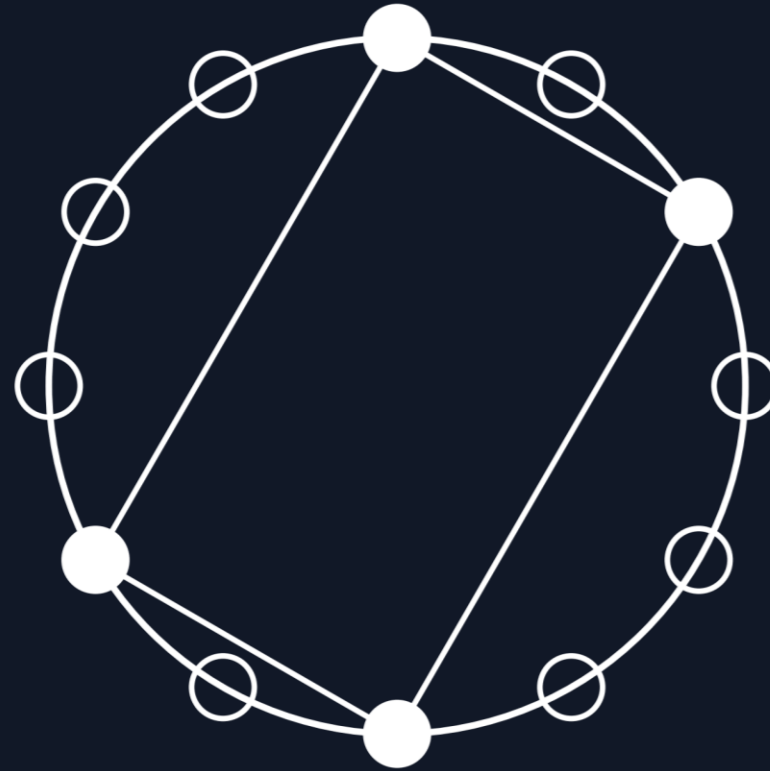


Rhythm!

Bulería por soleá



Media bulería



Thank you for your attention!

Questions / Inquiries / Homework /Anxiety rants

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