

Tarot, Physics, and Sting:

To see the Tarot structure of the [D4-D5-E6 physics model](#), start with the minor arcana card 2 of cups, and add cards as follows:

2c

This is $\text{Spin}(2) = \text{U}(1)$

2w

2c

2s

This is $\text{Spin}(3) = \text{SU}(2) = \text{Sp}(1) = \text{S}_3$

2w 4c

2c 2p

2s 4p

This hexagon is $\text{Spin}(4) = \text{Spin}(3) \times \text{Spin}(3)$
 $= \text{SU}(2) \times \text{SU}(2)$
 $= \text{Sp}(1) \times \text{Sp}(1)$
 $= \text{S}_3 \times \text{S}_3$

With Minkowski signature, it is $\text{Spin}(1,3)$.

	4w	6c	6w	
2w	4c		8c	
2c		2p		
2s	4p			

This is $\text{Spin}(2,3) = \text{Sp}(2)$.

	4w	6c	6w	
2w	4c		8c	
2c		2p		8p
2s	4p		8p	
	4s	6p	6s	

This nest of 2 hexagons is $\text{Spin}(2,4) = \text{SU}(2,2)$.
 Euclidean signature gives $\text{Spin}(6) = \text{SU}(4)$.

	3s	7p	3w	5c	
	4w	6c	6w		5w
2w	4c		8w		3c
2c		2p		8p	
2s	4p		8s		
	4s	6p	6s		

This is $\text{Spin}(7)$.

3s 7p 3w 5c

4w 6c 6w 5w

2w 4c 8w 3c

2c 2p 8p 8c

2s 4p 8s 7c

4s 6p 6s 5s

7s 3p 7w 5p

This is D4 of Spin(1,7) and Spin(8).

[Compare the 28 Hsiu.](#)

Now there are 3 nested hexagons.

The 16 blue points generate $U(2,2) = SU(2,2) \times U(1) = Spin(2,4) \times U(1)$.

The 8 red points generate $SU(3)$.

The 4 green points generate $U(2) = SU(2) \times U(1)$.

9c 9p 9w 9s 10c

3s 7p 3w 5c 10p

4w 6c 6w 5w 10w

2w 4c 8w 3c 10s

2c 2p 8p 8c

2s 4p 8s 7c

4s 6p 6s 5s

7s 3p 7w 5p

This is Spin(9).

9c 9p 9w 9s 10c

3s 7p 3w 5c 10p

4w 6c 6w 5w 10w

2w 4c 8w 3c 10s

2c 2p 8p 8c Fo

2s 4p 8s 7c Hr

4s 6p 6s 5s Em

7s 3p 7w 5p Pr

Pc Pp Pw Ps Es

This is D5 of $\text{Spin}(1,9) = \text{SL}(2,0)$ and $\text{Spin}(10)$
with dimension $45 = 28+16+1$.

The 16 form an 8-dim complex space
with 8-dim real [Shilov boundary](#).

[Compare the 8 Immortals](#).

Here there are 4 nested hexagons.

To get to 78-dim E6 from 45-dim D5= $\text{Spin}(10)$,
you need 33 more cards:

16 = 4 aces, 4 jacks (knights), 4 queens, and 4 kings
from the minor arcana;

1 = the devil;

16 = all major arcana except fool, devil,
emperor, priestess, emperor, hierophant.

Ac Nc Qc Kc Ap Np Qp Kp Aw Nw Qw Kw As Ns Qs Ks

Dv

St Wh Jt Mg Wo Lv Ch Ht Mo Sr Tm Js Su HM Dt Tw

They do NOT form more hexagons,
 as they represent spinor representations
 as opposed to vector representations,
 so

the final tarot pattern for E6 is
 the D5 4-level nest of hexagons plus the 33:

	9c	9p	9w	9s	10c				
	3s	7p	3w	5c		10p			
	4w	6c	6w		5w			10w	
	2w	4c		8w		3c			10s
2c		2p		8p		8c			Fo
	2s	4p		8s		7c			Hr
	4s	6p	6s		5s			Em	
	7s	3p	7w	5p				Pr	
	Pc	Pp	Pw	Ps	Es				

Ac Jc Qc Kc Ap Jp Qp Kp Aw Jw Qw Kw As Js Qs Ks

Dv

St Wh Jt Mg Wo Lv Ch Ht Mo Sr Tm Js Su HM Dt Tw

In this interpretation,
 the Tarot cards correspond to physics as follows:

c - cups = [hearts](#)

p - pentacles = diamonds

w - wands = clubs

s - swords = spades

2w, 2s,

4c, 4p, 4w, 4s,

2c, 2p, 8p, 8c (Cartan subalgebra)

6c, 6p, 6w, 6s,

8w, 8s - 16-dim $U(2,2) = U(2,2) \times U(1) = Spin(2,4) \times U(1)$

3s, 7p, 3w,

3c, 7c, (Cartan subalgebra)

7s, 3p, 7w - 8-dim $SU(3)$

5w,

5p, 5c, (Cartan subalgebra)

5s - 4-dim $U(2) = SU(2) \times U(1)$

9c, 9p, 9w, 9s - spacetime t, x, y, z

10c, 10p, 10w, 10s - internal symmetry space

Fo - fool = joker - converts

real spacetime and internal symmetry space
into

imaginary spacetime and internal symmetry space

Pc - page of [cups](#) - spacetime time t

Pp - page of pentacles - spacetime space x

Pw - page of wands - spacetime space y

Ps - page of swords - spacetime space z

Es - empress - internal symmetry space

Pr - priestess - internal symmetry space

Em - Emperor - internal symmetry space

Hr - hierophant - internal symmetry space

Ac - ace of cups - electron neutrino

Jc,Qc,Kc - jack, queen, king of cups
- red, blue, green down quarks

Ap - ace of pentacles - electron

Jp,Qp,Kp - jack, queen, king of pentacles
- red, blue, green up quarks

Aw - ace of wands - electron anti-neutrino

Jw,Qw,Kw - jack, queen, king of wands
- red, blue, green down anti-quarks

As - ace of swords - positron

Js,Qs,Ks - jack, queen, king of swords
- red, blue, green up anti-quarks

Dv - devil = joker2 - converts

real fermion particles and antiparticles
into

imaginary fermion particles and antiparticles

St - stars - determine fates

- electron neutrino

Wh - wheel of fortune - used by magician to make judgment

- red down quark

Jt - judgment - made by magician using wheel

- blue down quark

Mg - magician - uses wheel to make judgment

- green down quark

Wo - world - people whose fates are determined

- electron

Lv - lovers - lovers

- red up quark

Ch - chariot - warriors

- blue up quark

Ht - hermit - hermits

- green up quark

Mo - Moon - factors in determining fates
- electron anti-neutrino

Sr - strength
- red down anti-quark

Tm - temperance
- blue down anti-quark

Js - justice
- green down anti-quark

Su - Sun - fates
- positron

HM - hanged man - pending judgment = uncertain
- red up anti-quark

Dt - death - end of life
- blue up anti-quark

Tw - tower - continue life
- green up anti-quark

If you ignore the complex imaginary structure of 78-dim E6,
you get 52-dim F4, with this 52-card physical interpretation:

36 of Spin(9) and 16 of quarks and leptons form 52-dim F4.

JH, QH, KH	JD, QD, KD	JC, QC, KC	JS, QS, KS	- quarks
AH	AD	AC	AS	- leptons

28 of Spin(8) and 4 of spacetime and 4 of iss form 36-dim Spin(9).

10H	10D	10C	10S	- iss = internal symmetry space
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9H	9D	9C	9S	- spacetime
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16 of U(2,2) and 8 of SU(3) and 4 of U(2) form 28-dim Spin(8).

2H, 4H, 6H, 8H	2D, 4D, 6D, 8D	2C, 4C, 6C, 8C	2S, 4S, 6S, 8S	- U(2,2)
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3H, 7H	3D, 7D	3C, 7C	3S, 7S	- SU(3)
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5H	5D	5C	5S	- U(2)
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Sting and Tarot:

According to [a web page reviewing a Sting CD-ROM](#): "... STING "All This Time" is a CD-ROM adventure ... released by Starwave in 1996 ... The 3D scrolling landscape contains numerous musical environments to explore where hidden tarot cards may be collected. Once all the cards are found, you are rewarded with a personal tarot card reading by Sting himself. ...".

According to [an opinion review web page](#): "... Ten Summoner's Tales - Sting ... Ten Summoner's Tales was his sixth solo album produced early in 1993 ... TRACKS ... Shape Of My Heart (4:38) ... STING ON SHAPE OF MY HEART ... Thoughts from his 1993 Promotional Interview ...

"I wanted to write about a card player, [a gambler who gambles not to win but to try and figure out something](#);

to figure out some kind of [mystical logic](#) in luck, or chance;

some kind of [scientific](#), almost [religious](#) law.

So this guy's a philosopher, he's not playing for respect and he's not playing for money, he's just trying to figure out [the law](#) - there has to be some [logic](#) to it. ...

... The derivation of playing cards are actually [tarot](#) cards, and they are thousands of years old ..."

... FEATURED ARTIST ON SHAPE OF MY HEART ... Larry Adler, who haunts this track with his soulful harmonica, was [blacklisted](#) during the McCarthy era of the 1940s. He has lived in London ever since. Adler has played with the best of history's great bands and musicians, including Gershwin. Sting handpicked him to compliment this particular song's lyrics. ... LYRICS... Shape Of My Heart ... Written by: Sting & Dominic Miller ...

He deals the cards as a [meditation](#)
And those he plays never suspect

He doesn't play for the money he wins
He do[es]n't play for respect

He deals the cards to find [the answer](#)
The sacred geometry of chance
The hidden law of a probable outcome
The numbers lead a dance

...

I know that the spades are the swords of a soldier
I know that the clubs are weapons of war
I know that diamonds mean money for this art
But that's not the shape of my heart
That's not the shape, the shape of my heart
That's not the shape, [the shape of my heart](#) ...

... The eldest of four children raised by working class parents, Gordon Matthew Sumner began his adult life as a ditch digger. In 1974, after attaining his teaching license, he became an instructor in a Roman Catholic high school. Sumner eventually became a jazz musician in the late 1970s. Sumner joined many jazz bands during the early part of his musical career, including The Phoenix Jazzmen, who dubbed him 'Sting' (short for 'Stinger') after he arrived at a jam session dressed in a black and yellow rugby shirt, resembling a [bumble bee](#). The name stuck.

When he met US citizen and drummer, [Stewart Copeland](#), in a London pub the week following New Years Eve in 1977, Sting decided it was time to try to create his own band. Only four days later, he began rehearsing with guitarist Henri Padovani and Copeland in the latter's studio. In six months, (following several successful local gigs), Sting and Copeland were introduced to guitarist Andy Summers and the punk rock band known as The Police) was borne. ... In 1984, after nearly *eight years* of world-renowned successes as a three-piece band, (mostly due to a change in style from punk to pop/rock), The Police quietly called it quits. ... he wrote poetry and lyrics, beginning his solo career in 1985. ...".

According to [an Amazon review by Camille James Harman of Sting's 2003 memoir Broken Music](#):

"... Sting begins with an account of his and his wife's first ritual drink of [ayahuasca](#) in 1987 in Brazil. ...".

[Tony's Home](#)