

Axiomatic derivation of Phi (!) & FSC (?) from the Pythagorean Comma (PC)

Not at odds with the basis of science or any religion: - <http://www.gci.org.uk/images/King.pdf>

Richard Feynman said, "There is a most profound and beautiful question associated with the observed coupling constant, e – the amplitude for a real electron to emit or absorb a real photon. It is a simple number that has been experimentally determined to be close to 0.08542455.

My physicist friends won't recognize this number, because they like to remember it as the inverse of its square: about 137.03597 with about an uncertainty of about 2 in the last decimal place. It has been a mystery ever since it was discovered more than fifty years ago, and all good theoretical physicists put this number up on their wall and worry about it.

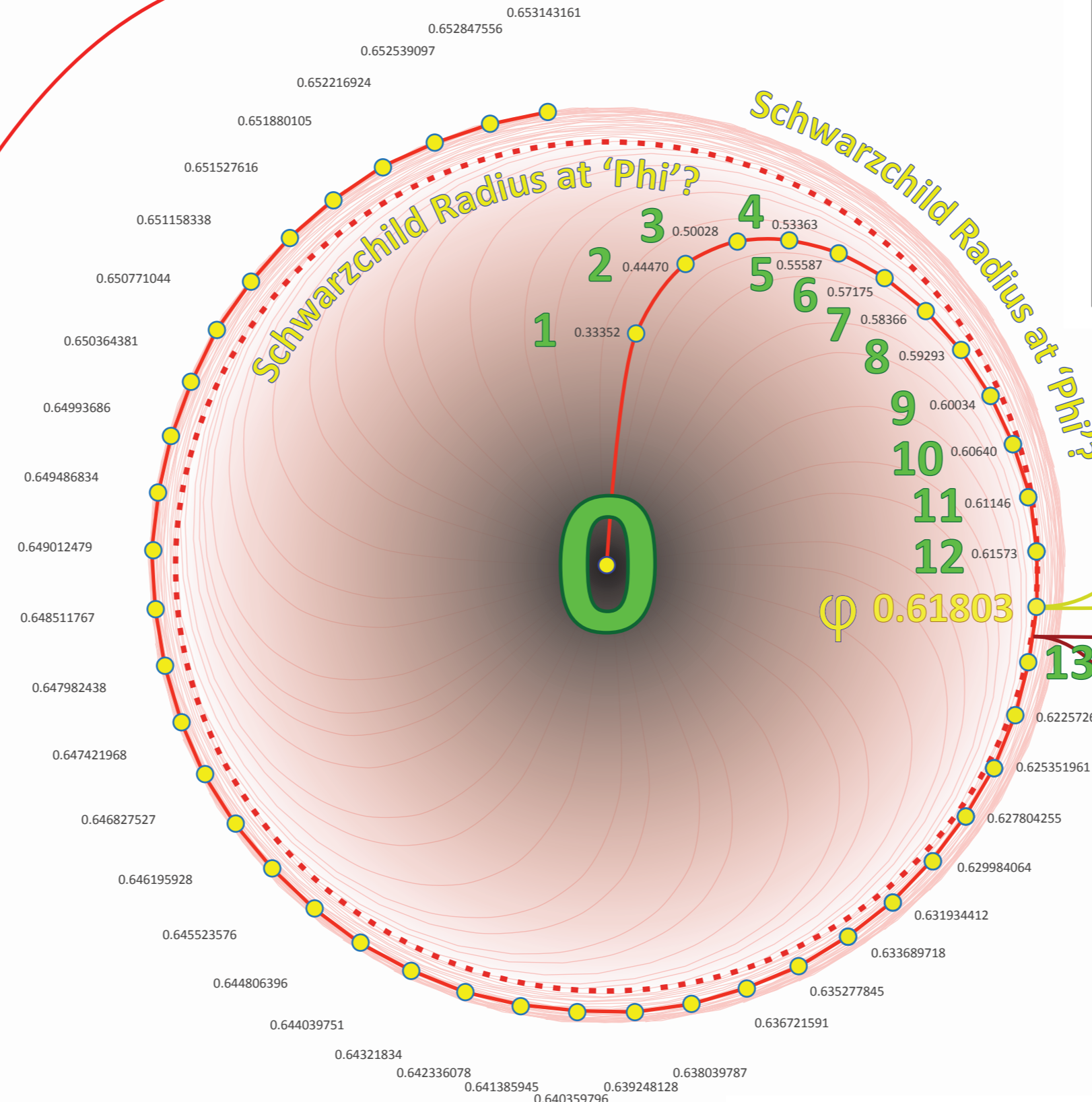
Immediately you would like to know where this number for a coupling comes from: is it related to pi or perhaps to the base of natural logarithms? Nobody knows. It's one of the greatest damn mysteries of physics: a magic number that comes to us with no understanding by man.

You might say the "hand of God" wrote that number, and "we don't know how He pushed his pencil." We know what kind of a dance to do experimentally to measure this number very accurately, but we don't know what kind of dance to do on the computer to make this number come out, without putting it in secretly!"

Phi Calculator
http://www.gci.org.uk/movies/Phi_Control.xls

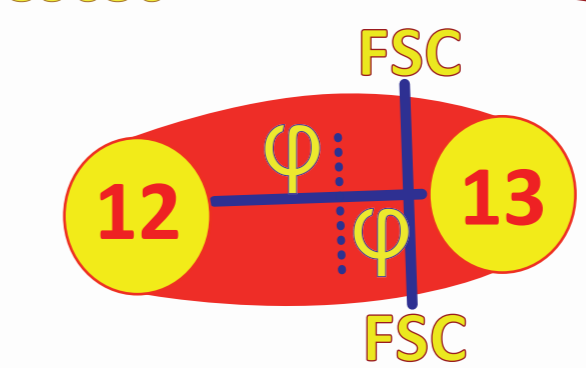
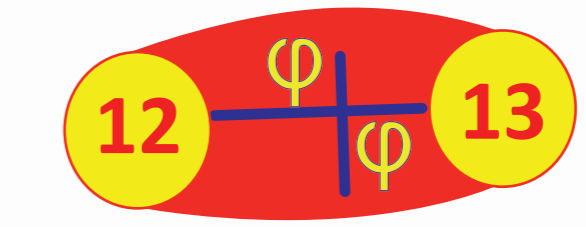
'Phi' - 0.61803 at 137.5079° - comes from the Hz differences between 12 Perfect & 12 Well Tempered 5ths (in 12 steps) fed back on themselves. This negative feedback comes from 'normalising' the Pythagorean Comma. The 'Cosmological or Fine Structure Constant' is the 12.999999 th Stage of the Pythagorean Comma.

Phi'	0.618033399	From the Pythagorean Comma comes 'Phi' & from 'Phi' comes the derivation of the
Circle (degrees)	360	
Circle * Phi	222.4920236	
Circle minus (Circle * Phi)	137.5079764	Cosmological Constant



". . . About 137.03597, with an uncertainty of about 2 in the last decimal place . . . "	137.035988	137.03597	Richard Feynman
	137.035983	137.03597	
	137.035978	137.03597	
	137.035974	137.03597	
	137.035969	137.03597	
	137.035964	137.03597	
	137.035959	137.03597	

'Phi' is between PC Steps 12 & 13 at 137.5079° or 0.61803



Feynman quotes FSC as 137.03597 or 0.61934452

Golden Section	Pythagorean Comma Stage 2	0.333521542	120°
	Pythagorean Comma Stage 12	0.615731358	
	At Golden Section between PC 12 & 13	0.618033399	137.50797641°
Fine Structure Constant	Pythagorean Comma Stage 12.99999	0.61934452	137.03597104°
	Pythagorean Comma Stage 13	0.619396360	137.01731048°
	Pythagorean Comma Stage ~ 1700	0.666547204	240°

Axiomatic derivation of Phi φ (Golden Ratio) from the Pythagorean Comma (PC)

<http://www.gci.org.uk/images/Famous.pdf> http://www.gci.org.uk/movies/Phi_Control.xlsx