

WALLY'Z RELATIVITY

ALBY'Z RELATIVITY Albert Einstein'z Relativity woz born in 1905 and died in 2005 --- R I P. Yes, our little German (near-nuff) plagiarist's works are being shifted over to the fiktion shelvz of libraryz all over the world. If Alby were alive today he would qualify for the 2006 Nobel Prize for Literature. Partikle Phyzicists are now sitting on a mountain of orphaned partiklez & rusting Nobel Prizez --- HmMMMMMM. Today, about all that we hav left iz Alby'z Law that --- **god duz not play dice**. But, we karnt giv him 10 out of 10 for this Law --- it iz a good Law, but it iz only a negativ Law. Alby should hav added --- **She playz billiardz**. And we all know that She vizited earth to teach earthlingz a lesson --- in the guize of that other Alby, & son of Germany, Walter Albert von Lindrum. Which bringz me to the subjekt of this artikle --- Wally'z Relativity.

WALLY'Z RELATIVITY Wally woz say 5'-6" (1,679mm) high --- nowadays most of us are say 5'-10" (1,778mm) --- which iz a faktor of 1.0606 --- 6.06% higher than Wally. We will kall this 1.0606 Wally'z Konstant. So, billiardz must hav been eezyr in many wayz for Wally, kompared to the modern game that we all struggle with.

WALLY'Z BALLZ Wally'z Crystalates were probably $2^{3/32}$ " (53.18mm) --- whereaz nowadays we struggle with small $2^{1/16}$ " (52.5mm) ballz. Bigger ballz make for better akuracy, & better kontrol & touch. If we skaled Wally & hiz ballz up to our size hiz ballz would be $2^{1/8}$ ". I hav a set of $2^{1/8}$ " ballz at home, & theze look huge sitting next to the puny $2^{1/16}$ " ballz that we hav had foisted on us by the powerz-that-were. The larger ballz make the game eezyr --- especially nursery cannonz, Wally'z favorit method of play. And after a little while they don't look big at all --- but the small ballz then look really-really tiny when u get back to'em.

In the early dayz, billiard ballz were 2" (Crawley, 1857), later $2^{1/16}$ " (Badminton Billiards, 1896), later $2^{1/16}$ " to $2^{3/32}$ " (Dawson in 1904, & Holt in 1973). More lately, 52.5mm ($2^{1/16}$ ") or plus 0.05mm or minus 0.08mm, & within 0.5gm per set (Billiards & Snooker Control Council, 1988).

The modern maximum size, 52.55mm, ie (52.50mm plus 0.05mm), iz milez smaller than the old maximum, ie $2^{3/32}$ " (53.18mm). Yet the old maximum woz in fakt the size allwayz made, ie the $2^{3/32}$ " ball woz in fakt the standard size --- it woz uzed for championships and money matchez (but somtimez the slightly smaller $2^{5/64}$ " woz uzed). So, the $2^{3/32}$ " ball woz in fakt the standard size --- for one thing, when Bonzolinez & Crystalates kame in, this allowed for lots of wear over the very long life of theze kompozition ballz. Also, earlyr, ivory ballz were mostly made $2^{1/8}$ ", to allow them to be played-in, whence they were turned-down & were $2^{3/32}$ " when fighting fit. Then they were trued (rounded) a few more timez untill eventually they were under $2^{1/16}$ " & too small for proper billiardz (Mannock). So, here in the bad-new-dayz, the silly-looking ball-makerz, & the silly-looking powerz-that-be, make or stipulate $2^{1/16}$ " ballz --- woznt so in the good-old-dayz.

BONZOLINE & Crystalate ballz weighed 148gm to 152gm (mostly 150gm), & the small modern aramith weigh 139gm to 142gm (mostly 140gm) --- thusly the olden-ballz were

7.14% heavyr. This extra mass (& size), makes for better kontrol etc --- pace iz eezyr to judge & kontrol --- skrewy-shots are eezyr to kontrol (ie stopping the *q*ball on an exakt spot) --- & *q*ball *s*qirt iz feeble & eezyr to kontrol. Much more enjoyable.

GEZA GAZDAG'Z RELATIVITY

But, what i am saying iz that we should be uzing much-much bigger ballz --- $2\frac{1}{8}$ " --- theze would have 9.37% more volume than $2\frac{1}{16}$ " ballz --- in which kase if made of the same stuff they would weigh 153.1gm. In hiz 1991 book, *The Accomplished Cueman*, Geza sez that we should be uzing $2\frac{1}{8}$ " ballz --- to make the cannon game eezyr, to bring the 2 points per cannon more into relativity with the 3 points per red hazard --- & az a first step in bringing English Billiardz & Continental Billiardz together. In fakt, over there, they uze $2\frac{1}{4}$ " & $2\frac{3}{8}$ " ballz --- which i allso hav (aramith) & trot out okazionally – good fun, they (aramith) behave so much better than our small (aramith) krapballz.

DEPLETED URANIUM

Alltho, if we are concerned with mass rather than size, we would want to inkreec 7.14% by 6.06%, hence we should actually be looking for an extra 13.63% in mass to put Mr & Mrs Average on the same billiardz handikap az Wally --- rather than the meezly 9.37% that i kalkulated abov. Thusly, Wally'z ballz were either bigger than we thunk, or old Bakelite & shin-bone woz heavyr than new Bakelite (which spin-doktorz prefer to kall Phenolik Rezin). So, we should actually be talking about uzing somthing larger than $2\frac{1}{8}$ ", or we should be uzing $2\frac{1}{8}$ " but mixing some depleted uranium with our Bakelite.

SPEED OF LIGHT

Alby sed that the speed of light in vakuum didn't vary --- & Alby sed that the speed of light appeared konstant to any mooving observer allso. But Alby kompletely missed the main science here --- the size of the observer.

Wally, being small, would feel that the standard metre (1000mm) woz longer than would a large player (ie Neil Croft or Alan Croft) --- hence small Wally would feel that light travelled faster than did big Neil.

But, Wally'z small head ticked faster than Neil'z big head --- hence one second felt longer to Wally than it did to Neil. Yor view of 1000mm iz probably relativ to yor height or perhaps to the distance between yor eyez (with all due respekt to playerz with one eye). Yor feeling of one second iz probably related to the distance from yor eye to yor Tickerthalmus (playerz with one eye are back in the game here). So, theze 2 relativz tend to kancel each other, hencely...

The speed of light appearz the same to both a small observer & a large observer.

..... i will kall this Mac's Theory of Relativity.

Interestingly, Mac woz allso born in das Vaterland, in 1947, but denyz being related to Planck. Mac iz co-author of that famous billiardz book --- das KanonenBlitz Bible fur Dummkopfs.

TIME

But this sort of relativity duznt apply to billiardz. Not only did Wally enjoy large & heavy ballz, but he thort & reakted more *q*ickly than Mr & Mrs Average. In Melbourne most of our matchez are for 80 minutes --- i hav kalkulated that, in Euclidean space, small Wally would think that 80 minutes felt like 83 minutes & 46.5 secondz --- no wonder he skored so *q*ickly & prolifikally. I will kall the ratio of timez --- Mac's Konstant of Time (K_t) where.....

$K_t = t' / t...$ (1), ie 83.776 / 80. Arithmetikal divizion then yieldz 1.0472... which iz $\pi / 3 ...$ (2)

OLYMPICS And a small player iz not disadvantaged when it kumz to mooving around the table. If they had a 4m sprint at the Olympics, the smallest guy would win the Gold Medal -- he would be first to hear the pistol, first out of the blocks, & first to reech top gear.

CUEZ Wally uzed a big fat 18½ oz cue in hiz early dayz, but switched to a 14¾ oz cue in his latter yearz. If we were to uze ballz that were 13.63% heavyr than the modern 140gm, ie 159gm, then our modern say 18 oz cuez would need to be upgraded to 20.5 oz to retain our feel etc --- mainly for forcerz i guess.

On the other hand, if Wally had had to uze our small'n'lite krapballz, he would hav had to downgrade hiz 14¾ oz cue to only 13¾ oz to retain hiz feel --- mainly for playing hiz nursery cannonz i guess.

TABLEZ "All first-class tables are about three feet high" (Crawley, 1857). " 2'-8" from the floor to the cloth" (Badminton Library, 1896). " from the floor to the top of the cushion-rail must be 2'-9½", or not more than 2'-10" " (Alcock, 1901). More lately, 850mm (2'-9.46") to 875mm (2'-10.45") (Billiards & Snooker Control Council, 1988).

Nowadayz, most tables in Melbourne are i think about 2'-9½" high --- the viziting England team sed that our tablez were lower than their'z --- their'z were 2'-10" or perhaps even 2'-10½".

The modern Mr & Mrs Average should be playing on a table 6.06% higher than 34", ie 36.06" (915mm). I feel particularly sorry for playerz that are 6' (1,829mm) or taller --- the solution to this problem iz about the eezyst u might ever kum akross --- just feed a reality pill to the powerz-that-be so that they change the rule.

3905 We will disregard the logik that the 12' by 6' tablez should allso be enlarged --- tablez are too big az it iz. The modern tablez playing surface iz 3569mm long.

Applying the Pythagoras Tranzform, this meenz that a table iz 3905mm, mezured on the diagonal --- & this woz the size in Wally'z day allso. 3905 just happenz to be the size of Wally'z rekord break --- back in about 1930 --- hiz sekond highest break ever. But it all gets even weirder.

4137 But, to Wally, a 3905mm table would hav seemed bigger than it duz to our modern Mr & Mrs Average.

So, having applyd the Pythagorean Tranzform, we now apply Wally'z Konstant (1.0606), and the 3905mm diagonal iz stretched in Euclidean space, & bekumz 4137mm on the diagonal. This iz the size of table needed for Mr & Mrs Average, if they are to feel like Wally must hav felt.

Hmmmmmm this 4137 happenz to be Wally'z highest ever break, the accepted world rekord break --- which will stand for all time, for the whole universe. There sure iz somthing strange going on here. Anyhow, let us kall this number

Wally'z Number --- 4137.

Paper submitted for peer review --- 5 December 2005 --- Melbourne, Australia.

Mac Rynkiewicz NCP (honours) Cheltenham Club Newz Board 10 December 2005