

Quaternion RAP

Intro

****1843****, through the Dublin rain,
Hamilton walking, straining his brain.
Years chasing numbers, every trick in the book,
Then epiphany struck as hard as a **GLOCK**.

Broom Bridge calling, thoughts in a twitch,
"I got four dimensions, I solved the son of a bitch!"
Carved in the stone for the world to see,

I squared equals

J squared equals

K squared equals

I times **J** times **K** equals **minus one**

That is where its all coming from

Space started dancing to a brand-new beat,

Now pull up a chair—look to a Wonderland feat.

Verse 1

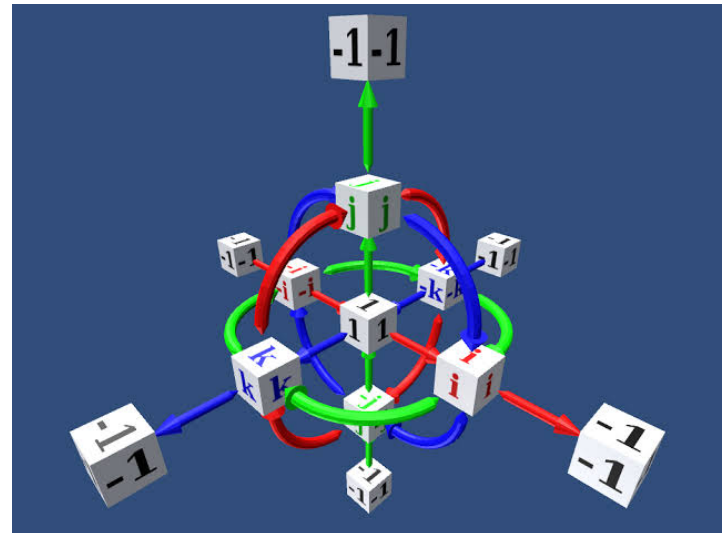
Welcome to the tea party, pull up a seat,
Nothing here is obvious 'cause the maths ain't neat.

Mad Hatter laughing with a sideways grin,
March Hare bouncing, let the madness begin.

Alice stepped in, said, "What is this place?"
Reality twisted and whirled in outer-space.
Dormouse sleeping, quiet as can be,
The only dude grounded in reality.

Hatter was **I**, March Hare was **J**
Alice rolled in as the **K** ballet.
Dormouse hiding with the scalar grin,
Undoing all the madness quietly within.

Clock says six but it never moves,
Time walked out and nobody improves.
Infinite tea, impossible day,
Round and round in quaternion play.



Chorus

Spin it! Flip it! Rotate that view!
Four dimensions coming straight at you.
Pour that tea till the matrix explodes,
Wonderland where the logic implodes.

Quaternion crew with the four-piece hand,
Twisting all of space with a 4D multiplicand.

Every teacup spinning in another frame,
Same old party—different game.

Verse 2

Hatter hit the Hare and Alice came alive,
I times **J** made **K**, now we're taking that ride.

Swap them round? No, that's not the game,
Change the order and the answer will change.

Non-commutative, don't swap the flow,
Left then right ain't the same, you know.
Every teacup spinning in another frame,
Wonderland physics rewriting the game.

White Rabbit's running but Time ain't home,
Everybody trapped in a twilight zone.
Infinite tea with an empty clock,
Reality dancing to Hamilton rock.

Bridge

Dormouse whispered, barely a sound,
 "I'm the real one holding this madness
 down."
 Nobody heard through the laughter and
 grot,
 Truth hides quietly inside the teapot.

Stir it clockwise, planets turn,
 Stir it backwards, the multiverses burn.
 Every cup another reference frame,
 Different perspective—the world's the
 same.

Final Verse

Fast-forward now to **2023**,
 Mad Hatter pouring his imaginary tea.
 Alice still spinning on **K** with delight,
 Dormouse keeping the scalar tight.

Ask any games programmer worth his
 stock,
 He'll steer you clear of the gimbal lock.
 Quaternions don't have no glitches, see,
 That's why the rotations are smoother in
 4D.

No sudden flips when the camera turns,
 No tangled axes while the graphics churn.
 From spaceships blasting to a VR flight,
 Hamilton's maths is steering us right.

From Broom Bridge stone to the latest
 GPU,
 The old Irish maths still carries on through.
 Mad Hatter laughing, "Another cup of
 tea!"
 Alice squeaking, "It's all 4D geometry!"

I J K keeping the beat,
 Vectors dancing with hyper-dimensional
 feet.
 Dormouse dreaming while the teacups
 spin,
Keeping it real, tucked quietly within.

Hamilton smiling in his Dusty Frock Coat,
 He started the electro-magnetism rote,
 Standing over physics with a grin so rich,
 He got four dimensions... He solved the
 son of a bitch.

One bridge. One thought. One afternoon.
 Now every game engine spins the
 quaternion tune.
 Wonderland flows with elegant ease—
 Quaternion rhythm... rotating through 3D.

