

# SQT

Scale-invariant Quantum Theory

“ The <sup>new</sup>~~only~~ game in town “

- ° Author Koenraad M.L.L. Van Spaendonck © 2025
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- ° Summary in 8 graphs p. 7 - 15

Is there a common ancestor  
for  
GR, QM and EMR [& strong nuclear force] ?

*The problem seems to me how one can formulate statements  
about a discontinuum without calling upon a continuum...  
...but we still lack the mathematical structure unfortunately.  
How much have I already plagued myself in this way !*

Albert Einstein [1916, Letter to H.W. Dällenbach]

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Bluesky : @koenraadvs1.bsky.social

X : @KoenraadVS1

website : [www.vanspaendonck.info](http://www.vanspaendonck.info)

email : [kvanspaendonck1@gmail.com](mailto:kvanspaendonck1@gmail.com)

## The key

A specific generalisation of GR by solving the rotating disc problem differently.

## The strategy

The concept of the toy model in SQT came to life when we applied  
the De Broglie matter wave constraint (no overlapping waves)  
to a compressible medium of discrete units (size-varying quanta)  
which reacts to the presence of a gravitational well.

That led to such a geometrical exactness, that we could show how Einstein's rotating disc  
could hold contracting rods (quanta) not just radially BUT ALSO tangentially.

Call it a tangential or transverse gravitational redshift as a consequence if you will.

This new equal proportionality of circumference to radius (as #quanta)  
prevents the disc from breaking, no curved surfaces needed anymore (!).

Using the equivalence principle, this feature now carries over into  
the generalized performance of the gravitational field, and into other levels of scale.

From the map to the territory, cheating is difficult because the toy model is extremely  
self-constraining, no curve-fitting, and no plethora of desired post-diction outcomes.

## No time to read it all ?

Go straight to the slides on pages 7-15.

Assess for yourself the multi-functional characteristics  
of one single unifying geometry, no curve-fitting involved.

The geometrical model stays exactly the same for every single one of the 6 characteristics.

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Radius stays proportional to circumference, when using discrete quanta

An exact discrete and Euclidean solution for the Eherenfest Paradox

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'Time' bending angle = exactly 'spacial' bending angle : doubling the angle

When using momentum transfer between quanta for propagation of light

° 3. Hydrogen : discrete E-levels of hydrogen excited states from simply counting quanta [P.11]

Exact discrete E-levels from sharply self-constrained model

Taken as pairs, the summation of quanta follows exactly :  $E = -13.6 \text{ eV} / n^2$

° 4. Gamma  $\gamma$  derived from the SQT-model by comparing local quantum densities of the field [P.13]

We use Hooke's Law to show this directly in the SQT-model

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Gravitational redshift not only has a radial component

Model says there is a tangential component equal in size to the radial component

This reinterprets redshift in side-faced star orbit velocities : no DM necessary

° 6. Universe : accelerated expansion is only apparent with the compressed state [P.15]

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