Generations per step

- Per progression step only ONE Qtarget is generated per Qpattern
- Generation of the whole Qpattern takes a large and fixed amount of progression steps
- When the Qpatch moves, then the pattern spreads out
- When an event (creation, annihilation, sudden energy change) occurs, then the enumeration generation changes its mode

Why blurred (1D)?

- Real Hilbert space model \Rightarrow No problem
 - Progression separated
 - Use rational numbers
 - Cohesion not too stiff (otherwise no dynamics!)
 - Keep sufficient interspacing
 - Lowest rational
 - May introduce scaling as function of progression
 - Fixed progression steps

Why blurred (1+1D) ?

- Complex Hilbert space model \Rightarrow No problem
 - Progression at real axis
 - Use rational complex numbers
 - Cohesion not too stiff (otherwise no dynamics!)
 - Keep sufficient interspacing
 - Lowest rational at both axes (separately)
 - May introduce scaling as function of progression
 - No scaling at progression axis

Why blurred (1+3D)?

- Quaternionic Hilbert space model ⇒ Blur required
 - Progression at real axis
 - Use rational quaternions
 - Cohesion not too stiff (otherwise no dynamics!)
 - Keep sufficient interspacing
 - Lowest rational at all axes (same for imaginary axes)
 - May introduce scaling as function of progression
 - No scaling at progression axis
- Blur installed by correlation vehicle

Why blurred (1+3D)?

- Enumerated objects (atoms) are not ordered
 - No origin
 - Affine-like space
- Enumeration must not introduce extra properties
 No preferred directions

Solution (no preferred directions)

- Random enumerator generation at lowest scales
- Let Poisson process produce smallest scale enumerator
 - Combine this Poisson process with a binomial process
 - This is installed by a 3D spread function
 - This generates a 3d "Gaussian" distribution (is example) The distribution represents an isotropic potential of the form Erf(r)

r

This quickly reduces to 1/r (form of gravitational potential)

• The result is a **Qpattern**

Blurred allocation function ${\mathcal P}$

Convolution

- Blurred function $\mathcal{P} = \wp \circ \mathcal{S}$
 - Sharp 🔗

• Spread *S*

maps RQE \Rightarrow Qpatchmaps Qpatch \Rightarrow Qtarget

- Function \mathcal{P}
 - Produces **QPAD** ψ

• Stochastic spatial spread function *S*

- Produces *Qpattern*
- Produces gravitation (1/r)
- Sharp 🔗
 - Describes space curvature
 - ✤ Delivers local metric d ℘

Step stones

- Step stones are placeholders where a selected Qpattern can be
- A coherent collection of these step stones represent the Qpattern
- The step stones are generated by the stochastic spatial spread function ${\cal S}$
- At each progression step a different step stone becomes the location of the Qpattern

Micro-path

- The Qpatterns contain a fixed number of step stones
- The step stones that belong to a Qpattern form a micro-path
- Even at rest, the Qpattern walks along its micro-path
- This walk takes a fixed number of progression steps
- When the Qpattern moves or oscillates, then the micro-path is stretched along the path of the Qpattern

Wave fronts

- At every arrival at a new step stone the Qpattern emits a wave front
- The wave fronts are emitted from slightly different locations
- Together, these wave fronts form ultra-high frequency waves
- The propagation of the wave fronts is controled by Huygens principle
- Their amplitude decreases with the inverse of the distance to their source

Wave front

- Depending on a dedicated Green's function, the integral over the wave fronts constitutes a series of potentials.
- The Green's function describes the contribution of a wave front to a corresponding potential
- Gravitation potentials and electrostatic potentials have different Green's functions

Potentials & wave fronts

- The wave fronts and the potentials are traces of the particle and its used step stones.
- Neither the emitted wave fronts, nor the potentials affect the particle that emitted the wave front
- Wave fronts interfere
- Together the wave fronts form a field

Photon & gluon emission

- A sudden decrease in the energy of the emitting particle causes a modulation of the amplitude of the emitted wave fronts
- The creation of this modulation lasts a full micro-walk
- The modulation of the UHF carrier wave becomes observable as a photon or a gluon
- The modulation represents an energy quantum $E=\hbar\cdot\nu$
- The energy is shown in the modulation frequency v

Embedding continuum

- A curved continuum embeds the elementary particles
- The continuum is constituted by a background field
- On its turn the background field is constituted by the wave fronts that are emitted by ALL elementary particles that until that instant existed in universe.

Photon & gluon absorption

- A modulation of the embedding continuum can be absorbed by an elementary particle
- The modulation frequency determines the absorbable energy quantum
- The modulation must last during a full micro-walk

Photons and gluons

Photons and gluons are energy quanta

 Photons and gluons are NOT electromagnetic waves!

Photons and gluons are NOT particles

Palestra

- Curved embedding continuum
- Represents universe

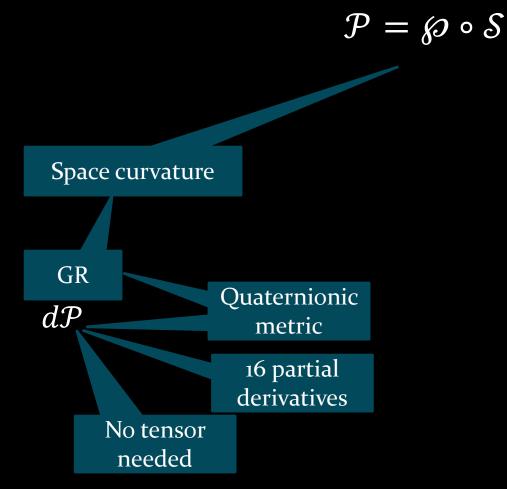
Embedded in continuum



Collection of Qpatches

The Palestra is the place where everything happens

Mapping



Quantum fluid dynamics

Quantum physics

- Continuity equation $abla \psi = \phi$
- Dirac equation $\nabla_0[\psi] + \nabla \alpha[\psi]$
- In quaternion format $abla \psi = m\psi *$

Navigate

To Logic Systems slides: http://vixra.org/abs/1302.0122

To Hilbert Book slides part 1: http://vixra.org/abs/1302.0125

To "Physics of the Hilbert Book Model" <u>http://vixra.org/abs/1307.0106</u>